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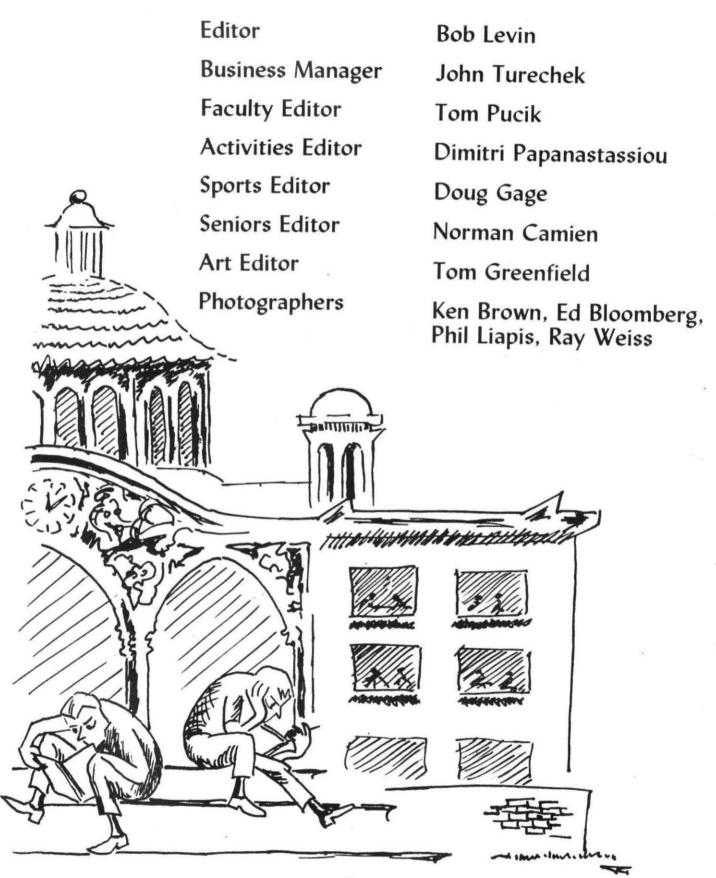
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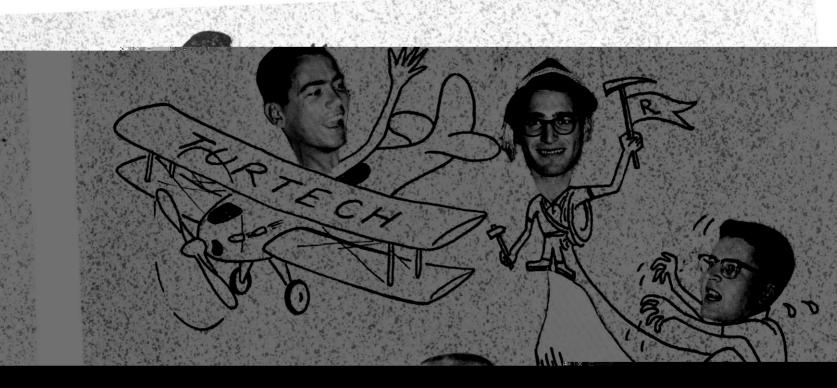
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#### **STAFF**



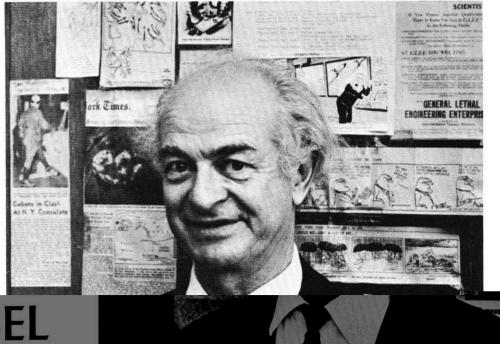


#### IN MEMORIAM

William C. McDuffie Theodore Von Karmen Gordon A. Alles James D. Smith Morgan Ward Robert L. Minckler Howard J. Lucas

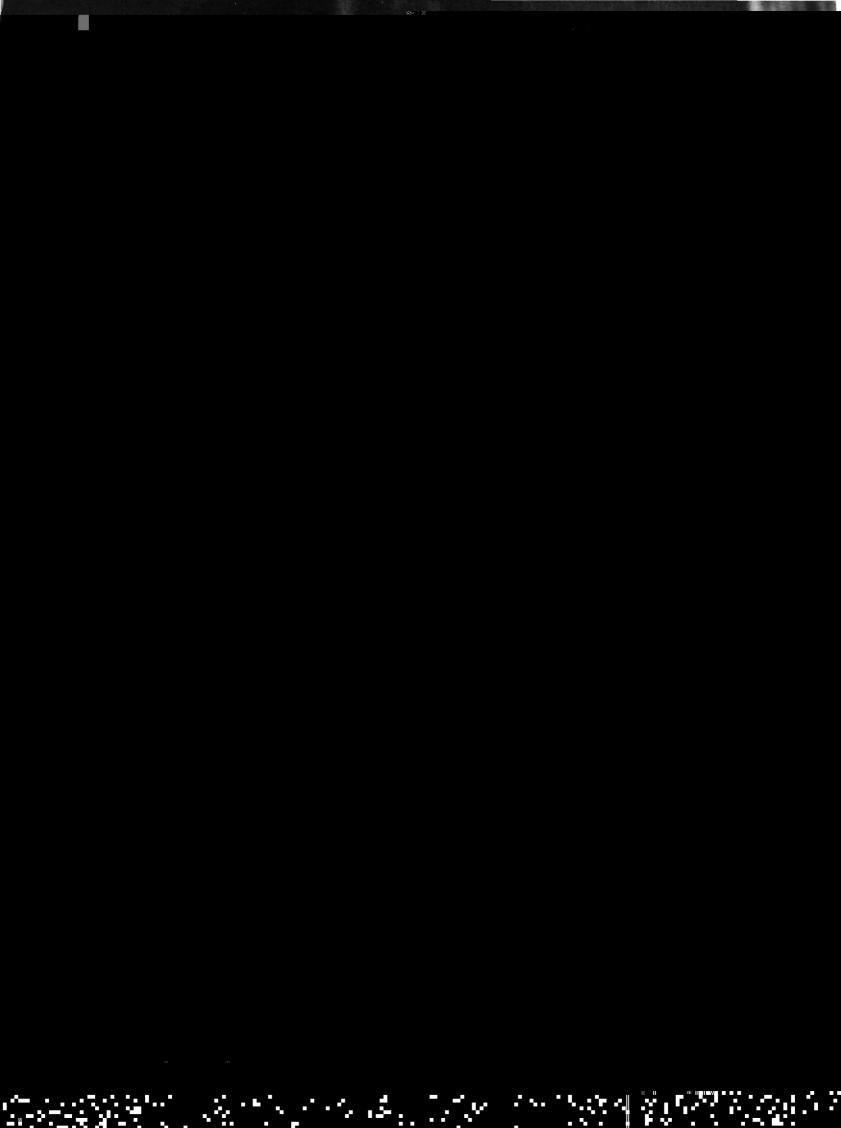


# NUMBER TWO!



# NOBEL PEACE





### DEANS



ROBERT F. BACHER Provost



HENRY I. WEITZEL Registrar



H. FREDERIC BOHNENBLUST Dean of Graduate Studies

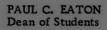




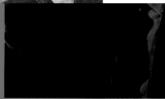
FOSTER STRONG Dean of Freshmen

(Photograph of President DuBridge by James McClanahan.)









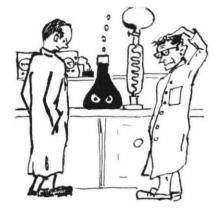
L. WINCHESTER JONES Dean of Admissions



#### CHEMISTRY



FRONT ROW, LEFT TO RIGHT: R. M. Badger, S. I. Chan, R. M. Pitzer, E. W. Hughes, J. D. Roberts. SECOND ROW: L. Pauling, A. Kuppermann. BACK ROW: J. H. Sturdivant, R. E. Dickerson, F. C. Anson, H. M. McConnell, O. R. Wulf.





JOHN D. ROBERTS Chairman of the Division of Chemistry & Chemical Engineering.

CHEMICAL ENGINEERING

FRONT ROW, LEFT TO RIGHT: B. S. Malone, R. G. Rinker, B. H. Sage, C. M. Knobler. SECOND ROW: G. N. Richter, W. H. Corcoran, P. A. Longwell, R. C. Seagrave, H. H. Reamer.

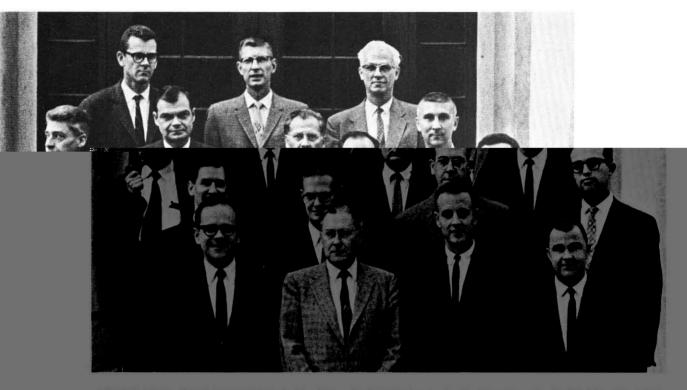


FRONT ROW, LEFT TO RIGHT: C. H. Papas, P. Daly, R. V. Langmuir, R. W. Sorensen, R. Sivan, R. F. Soohoo. MIDDLE ROW: C. A. Mead, M. A. Nicolet, G. D. McCann, H. C. Martel, P. V. Mason. BACK ROW: F. B. Humphrey, G. D. Swanson, T. L. Grettenberg, C. H. Wilts.

#### **ENGINEERING AND**

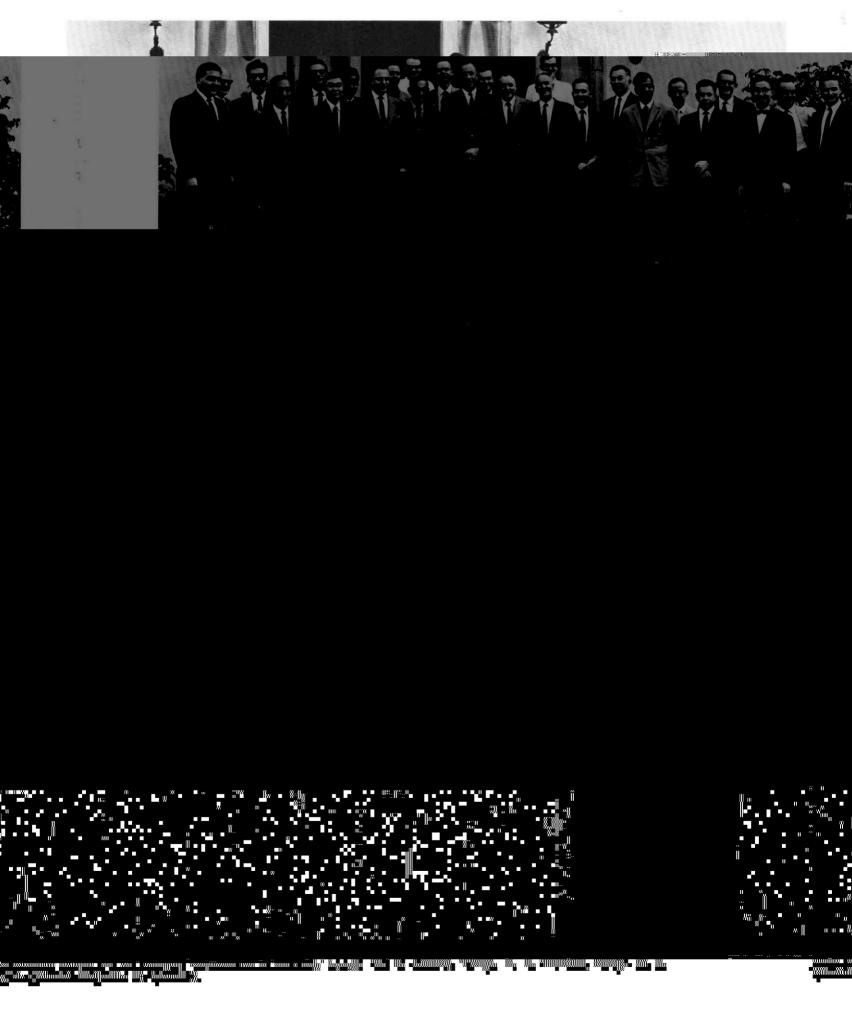


FRONT ROW, LEFT TO RIGHT: G. W. Housner, F. Raichlen, V. A. Vanoni, J. E. McKee, F. C. McMichael. BACK ROW: A. N. Schofield, N. H. Brooks, R. F. Scott, C. W. McCormick, W. Samples, S. Cherry.

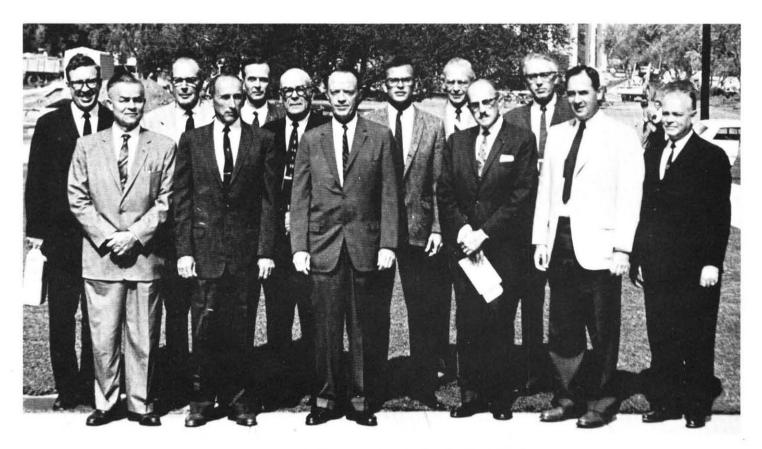


FRONT ROW, LEFT TO RIGHT: J. Franklin, J. H. Wayland, J. K. Knowles, D. F. Welch. SECOND ROW: H. Lurie, D. E. Hudson, T. K. Caughey, R. H. Willens. THIRD ROW: P. Duivez, R. H. Sabersky, F. S. Buffington, J. Miklowitz. BACK ROW: A. J. Acosta, T. Vreeland, C. E. Crede.

## **APPLIED SCIENCE**

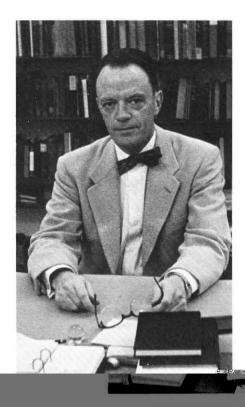


## HUMANITIES



LEFT TO RIGHT: E. S. Munger, H. N. Gilbert, L. W. Jones, J. Weir, R. W. Paul, H. Eagleson, H. D. Smith, J. Zeigel, R. E. Untereiner, A. Stern, R. Wayne, R. A. Huttenback, H. Booth.





HALLETT D. SMITH Chairman of the Division of Humanities.



LEFT TO RIGHT, FRONT ROW: G. E. Collins, J. N. Franklin, O. T. Todd, M. Hall, Jr., F. Bohnenblust. BACK R. Cole, J. Todd, G. B. Whitham, S. Kaplun, P. A. Lagerstrom, J. D. Dixon, R. E. Block, J. D. Halpern, C. R. W. A. J. Luxemburg, A. Erdelyi, R. P. Dilworth, P. L. Crawley, T. M. Apostol, M. Lees, D. E. Knuth, E. C. W. Cryer, R. A. Dean.

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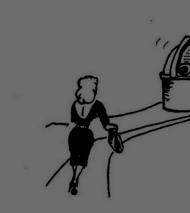
# ASTRONOMY



LEFT TO RIGHT: G. Munch, J. Greenstein, H. C. Arp, F. Zwicky, O. J. Eggen, J. B. Oke, M. Schmidt.





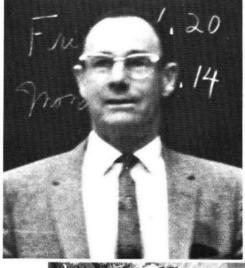


## GEOLOGY

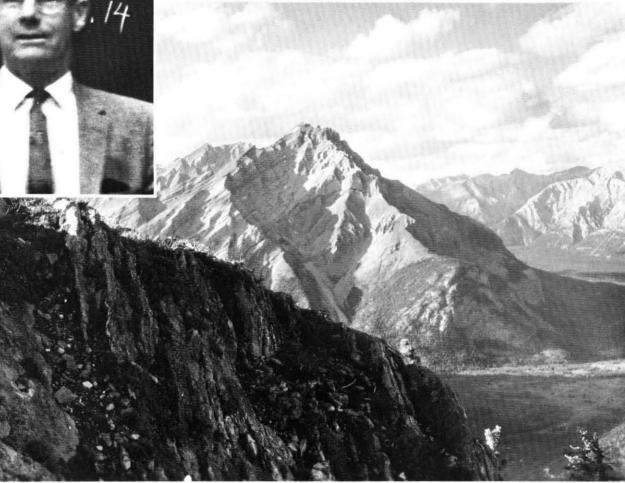


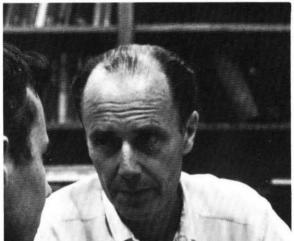


ROBERT P. SHARP Chairman of the Division of Geological Sciences



FRONT ROW, LEFT TO RIGHT: R. P. Sharp, G. J. Wasserburg, D. Anderson. SECOND ROW: A. L. Albee, H. Brown, S. Smith, E. T. Degens, S. Epstein. BACK ROW: L. T. Silver, B. Murray, H. P. Taylor, C. R. Allen, C. C. Patterson.





#### Campus

#### Personalities

What are faculty members really like?, that is, when they're not sleeping in the Athenaeum or in their labs? Our candid cam-

era, coming for 2 o'clock appointment suptomenters at 1:45, has finally caught them in their moments of truth. Glance only quickly, for you'd better look out for their horns.

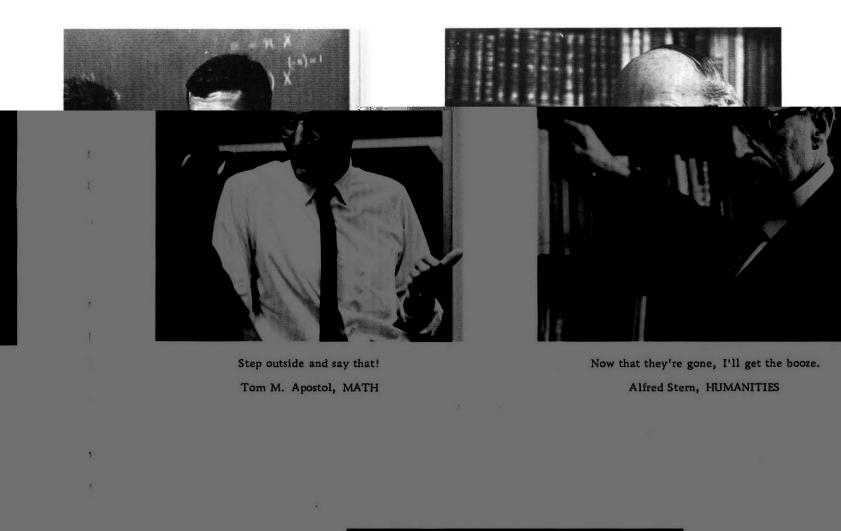


You put your finger on it again and I'll really jab it!

Norman Davidson CHEMISTRY

Photograph by Ray Weiss.

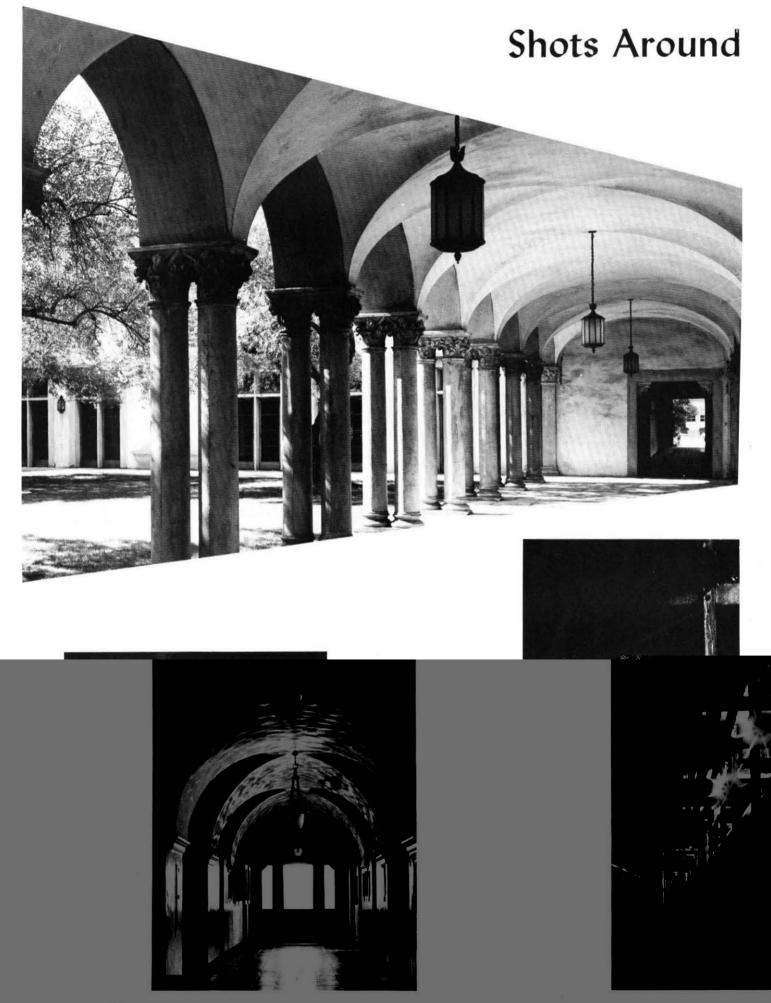


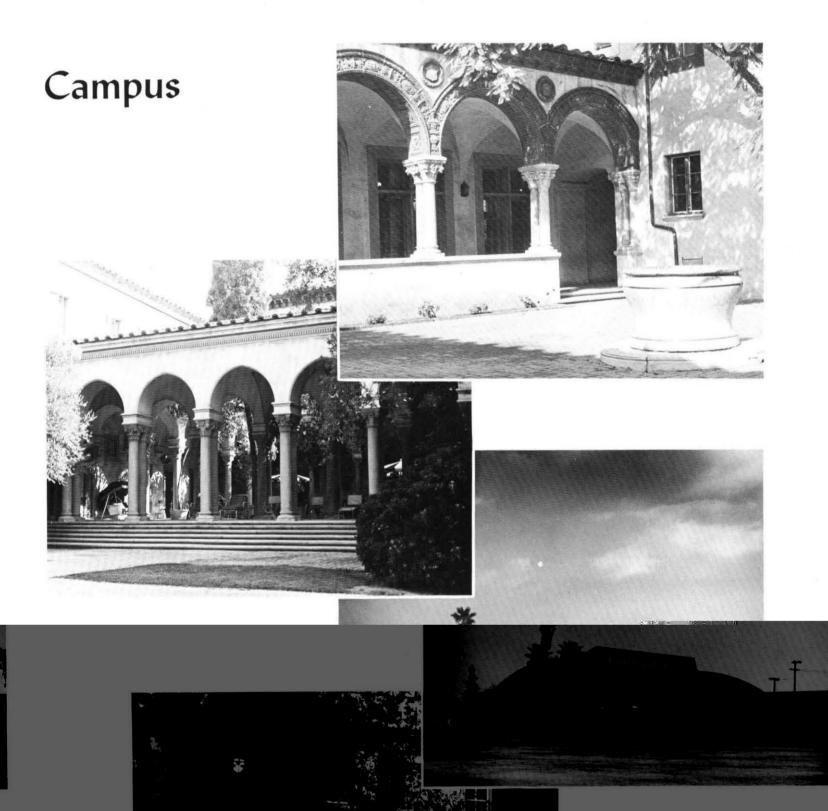


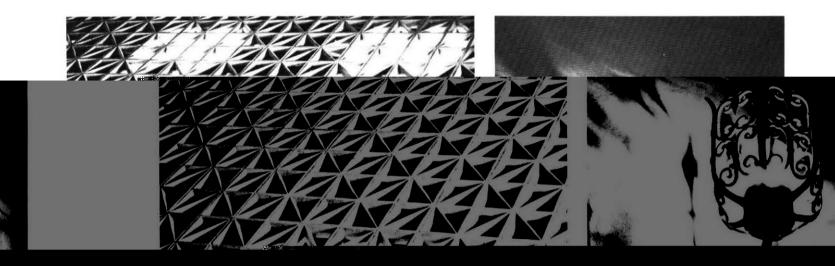
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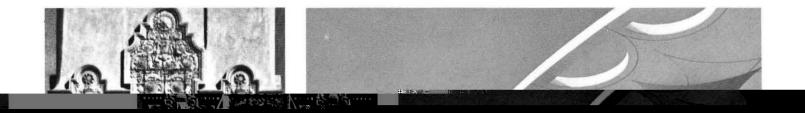
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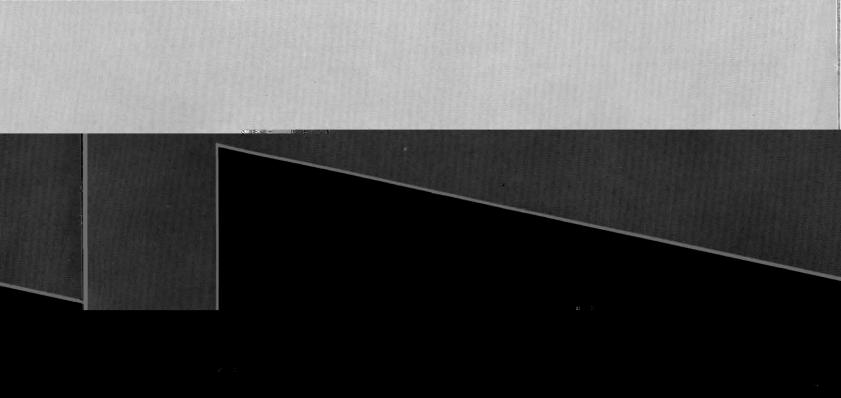
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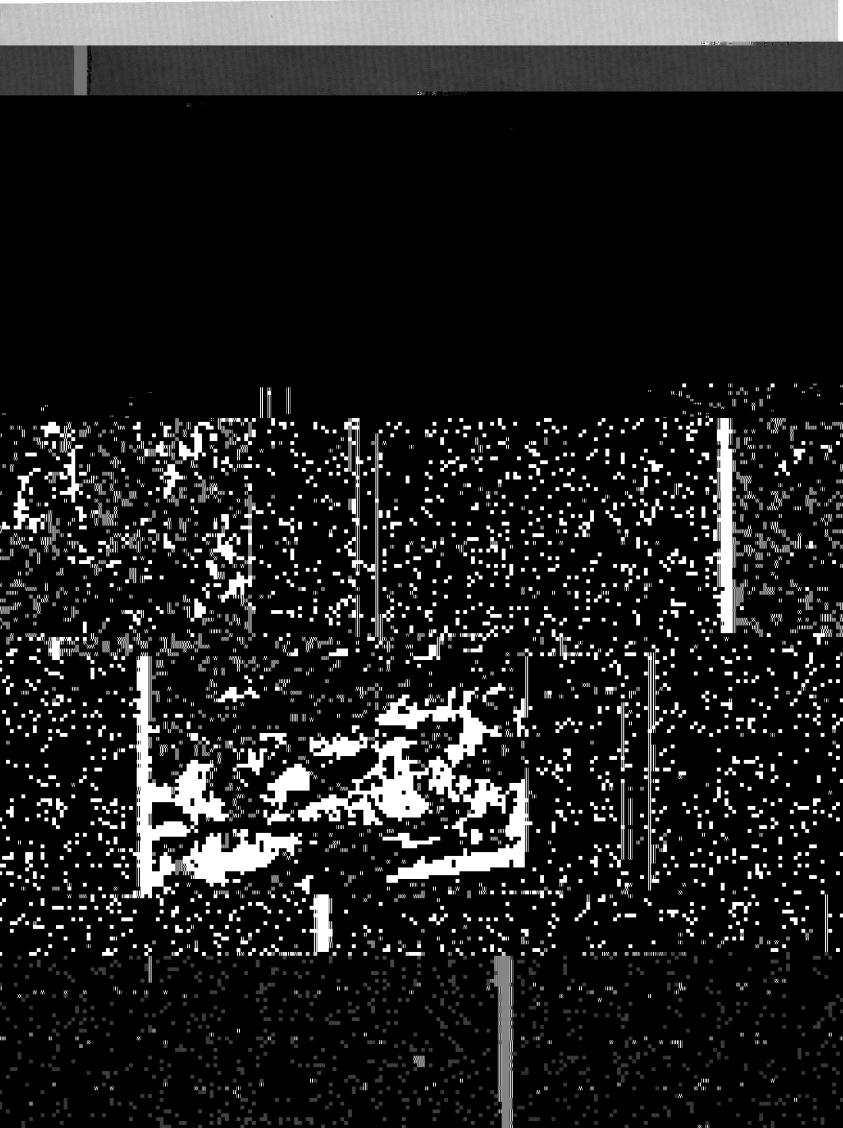




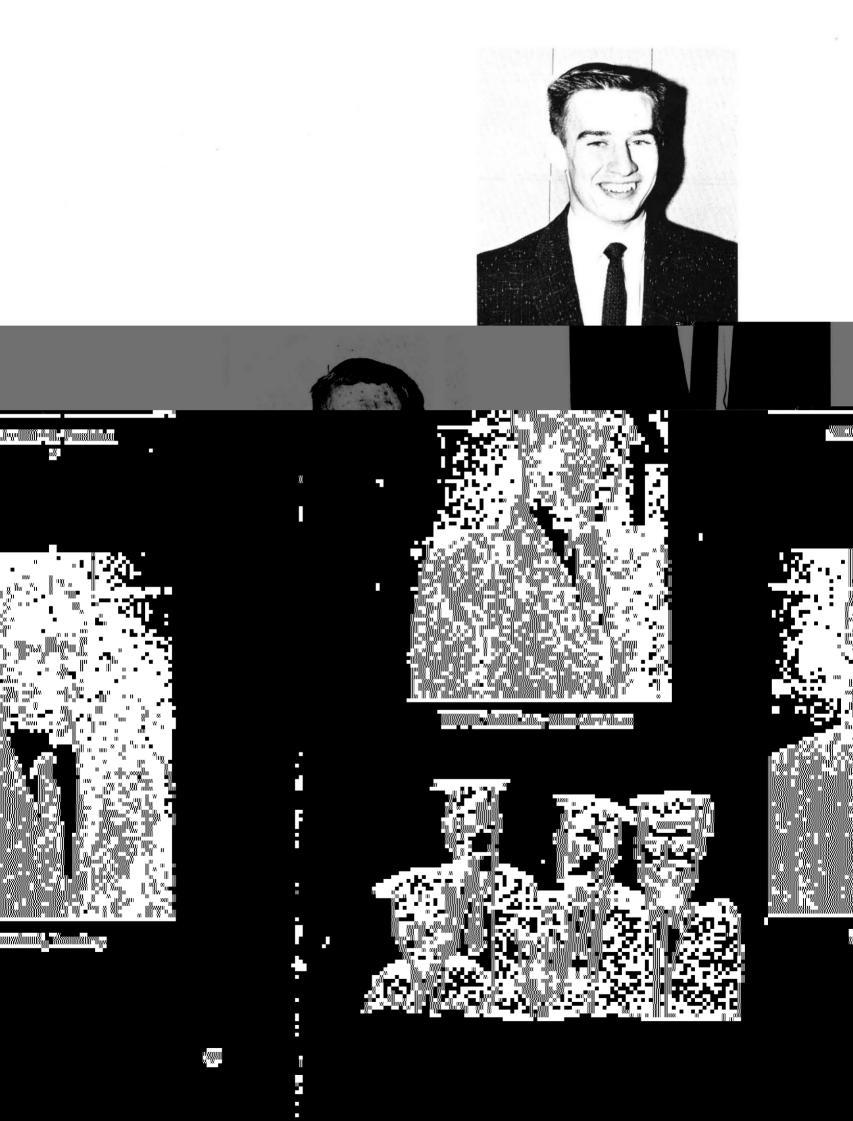












Contrary to wide-spread rumor, the several changes in the editorial policies of the **Big T** did not extend to the elimination of the Senior Section, as praiseworthy as such would have been.

But many innovations have been introduced in the nature of the presentation, and in the degree to which additional material has been included. In addition to the commonplace picture of campus and super-science, various curious photos have been inserted as struck the fancy of the Senior Editor.

Should you observe that many pages are what can only be described as crowded, maybe you should look again and find the reason.

> For the interest and edification of no one in particular, a list of those persons originally enrolled in the freshman class of 1960 but who are not graduating this year, whether they graduated a year early, obtained a leave of absence, transferred, or just flunked out, are listed on the last page of this section.

Happy Hunting!



Senior Editor





Astronomy

John R. Burke DABNEY John came to Millikan's Monastery with a passion for astronomy and German marches, and discovered water fights. This in no way detracted from his ability to integrate "like any machine"; and the path of integration now leads East, where he hopes to continue his studies at Hahvahd. He will be long remembered as one of the only chime at the state of the only







Lynn TenEyck

FLEMING





ahijiya Araaliisi'a, sisiinii 1708

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William Henry Howard LLOYD Bill has an affinity for math, girls, music and biology. After studying (sic!) dilettantism for three years, he took a leave of absence to the University of Cincipation the studied math, girls, and music the University of

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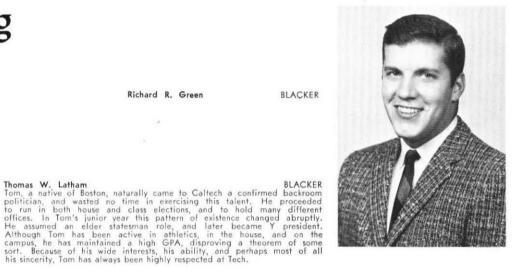
## Engineering



Bruce R. Beeghly RUDDOCK Realizing soon after his arrival here that he was repulsed by the idea of being a scientist, Bruce pursued his studies in EE with such vigor that he became renowned for getting homework done early. Although enjoying many happy times here, including playing on Ruddock's basketball team, he will be one of the happiest to receive that diploma in June.

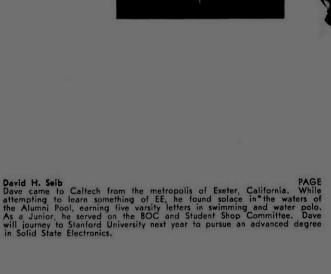
Richard R. Green

BLACKER











Daniel C. Paxton Infamous advocate of the early-to-bed-early-to-rise creed, Dan unfortunately achieved little more than health. Sacrilegious, he did not believe in either Southern California or Photons. He was a reluctant but qualified denizen of the Boor's Nest.

David R. Lambert DABNEY Hailing from "Anywhere, U.S.A.", Dave has spent four years brest-stroking against the currents of Techism, stopping at times to radiate into the outside world or to stab an opponent with his foil. Now as he finally reaches the shore, he hopes to use his experience as an aero-modeler and a member of the AE option to soar through meteorology at MIT Grad School.



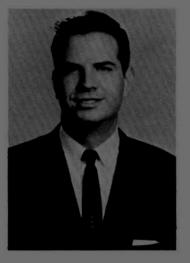


Hans G. Mattes FLEMING Hans came to Caltech from nearby San Marino, sharing the intentions of all Tech Frosh—to be a nuclear physicist. This abberation was guickly corrected however, and he settled down to his true research interest—the design of exotic high-fidelity systems. The remainder of his time was divided between the EPC, The ExComm, his two girl friends, and an occasional EE class. He will be best remembered for his artistry, his ability to hold down three places on the Fleming House Crew Team, and his cheery smile.

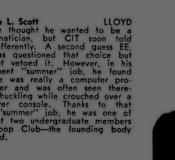


Albert E. Cosand FLEMING Al Cosand arrived at Fleming House looking too innocent to be true, and his interest in small intricate devices did little to alleviate fears. His major activities in the fields of hydrodynamics and micro-mechanical engineering strangely never appeared in his record. Al liked large grundling machines too, and became Emperor the Student Shop toy room. Always a Grade-A sidewalk superintendent and connoisseur of ancient and modern architecture, he could be seen studying into the late hours of the night with his sketch pad, slide rule, and nylon rope. Al was so much of an Engineering enthusiast that he even squeezed a few EE courses into his physics curriculum. Al is now looking for a grad school with no morning classes.





John H. McCoy FL John spent his first year a snowed under like all good Gome Sophomore year, thou decided to get out and see world where he was promptly under, but this time by a muci enter subject, Kathy I (a,b,c, After putting up a good figh year, he finally gave in and off-campus life offered more t boys in Fleming. John hopes on and get his masters der his minor field, EE.

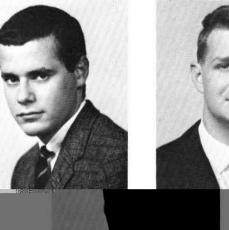






Mason L. Williams FI Upon arriving in Fleming Hou son began demonstrating thos and spiritual qualities whic made him the acknowledged le the Fleming House Mickey Club. As such he was largely sible for many expertly lighte events and many thoroughly ened strolls. He was also printer, house historian, and ruling Alley Six with an inc and a loud police whistle. I side activities included IEEE and ROTC. Nevertheless, as cated engineer, he will avoid for a living until after Grad Arthur D. Lipson

PAGE



Michael Ball

BLACKER



Douglas W. Hill DABNEY Doug came to Caltech from Portland, but while he was here, his home town changed to San Diego and then Chicago. He has been active in Dabney House as treasurer, head-waiter, and house stationwagon. His campus activities included band and student shop. Doug was so avid an ROTC man that they made him squadron commander in his junior year. Before going on active duty, Doug will

Howard Elliot Harry, Jr. RICKETTS There was a time in Ricketts when "men were men and gods walked the earth" but since that time the forces of darkness and evil have taken control. But look yonder at that spark of hope—it's the Elliot Harry. A spark cre-ated from energy in the form of sound. With his help Ricketts men may once again de-serve their title of rowdies. The battle is a difficult one against the ullCC and other





Serene is the moon in the still pool

William J. Schoene FLEMING





Ann Arbor's golden-haired boy, Jim joined the ranks of the Glee Club and the Republicans in his frosh year, and has remained loyal to both causes ever since. In addition, in his senior year Jim also joined the Glee Club's madrigal group. As a frosh, Jim earned numerals both track and cross-country, but did not go out the rest of his years here, convinced that his athletic provess was robbing him of his customary ten hours' sleep each evening. Electrical Engineer Jim lists his interests as ''girls (Mary), and computers,'' prob-ably in that order. He hopes to attend grad school in the Big Ten with future plans leading to work in computer re-search.

Roger L. Minear FLEMING Coming to Caltech from Portland, Oregon, Roger spent much of his time here assembling a magnificent hi fi system, building useless gadgets in the student shop, grading math papers, and serving as chairman of the EPC and the Election Committee. He may even have learned some EE, if the recurrent cries of "Hey, Rog, how do you do the 106 homework?" are any indication. Despite snaking "as little as possible," he has main-tained honor standing throughout his years here. Not knowing when to quit, Roger intends to return to Cal-tech for more of the same.



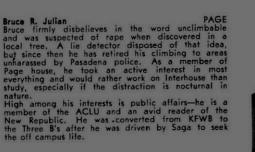




William R. Ricks

1

RUDDOCK



Ronald G. Findlay LLOYD Ron came expecting to leave Caltech as a nuclear physicist. Sometime during first term his frosh year, he suddenly remembered that he had al-ways wanted to be an electrical engineer. He hasn't changed his mind since. Ron will be remembered by Lloydmen for his love of (loud) organ music, his interest in high fidelity and record collecting, his liking for large quantities of uncommon teas, and his knack for avoiding letter with-ing-humm-and the Y Religious Emphasis Commission. Future plans in-clude working a few years and then picking up a masters in EE.







RICKETTS

Alvin Young Reluctantly leaving his 60 watts of Saber Dance home in Honolulu, this beaming kane arrived in his strange new home, where water is the only fluid that flows down mountainsides. Io add to this cold reception, the P.E. Department gleefully discovered that this bronzed beach needed to learn to swim. This was so upsetting that he sought to compensate by becoming the flercest player on the Lloyd 1.H. football team, a boisterous committee already known for its ferocious methods. Encouraged, he became a UCC and began to spread the doctrines of Hawaiism and Fingalism. All epopolition was met and the holy word 'yeah.'' Then, seeking to extend his dominion over nature, he took up EE, but his hopes were destroyed by the discovery that he couldn't solder. Re-turning in disgust to athletics, he idled awhile with tennis and Saga waiting before finally sounding the golden gong with karate. 1964 will probably see him return for his M.S. in EE (perhaps learn to solder) and his black belt in karate.











## Geology

Richard D. Maxson DABNEY Rick came from Michigan with physics on his mind. A few desert outings soon revealed the true light, and so he will graduate in Geophysics. He has served Dabney as his-torian and UCC, and has served the Darbs as a waiter for almost three years. Searching for the ideal passtime, Rick tried football, band, karate, and studying, but wound up commuting to San Diego. These solourns re-sulted in wedding plans between graduation and graduate school.

Leon A. Thomson DABNEY "I came to listen, but I stayed to scoff." Ben Franklin's words are a fitting summary of the Caltech career of Leon "Goose" Thomson. He was a scholastic success, rising from Dean Strong's Blue Slip list to Dean Eaton's grad-uation with honor list. He was an athletic success, assuming the role of the jock strapt in more ways than one. But sometime in his junior year, something went wrong: his gentle humor turned bitter, his quiet smile became a sneer. His remarks became predictable: "House spirit is a crock!" or "Americanism is a crock!" or "Culture is a crock!" Even as he took leave of Tech forever, he re-nounced her most sacred tradition with a mocking "Cynicism is a Crock!" That was the unkindest cut of all.

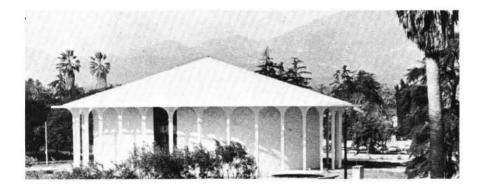




David A. Hewitt PAGE Dave is one of the "nicest" athletes who ever came out of New York. Also a devoted geologist from the first, he could never be coaxed into discov-ering the finer things in life. A car in his sophomore year went without use. Given up upon, by his buddies, as a born misogynist, Hewitt fooled them all by falling for a certain young mis at Oxy. Next year brings Grad School, rocks, and cold winters again.



Robert C. Liebermann RUDDOCK Remembered by Ruddock men as "the Beaver", Bob quite possibly holds the distinction of being the only 5' 5/2' ASCIT president ever. It all began when Bob took time off from physics in his sophomore year to become House Athletic manager. The next year he became ASCIT athletic manager followed by his victory in a hard fought campaign which made him student body president, earning such titles as "House political machine" in the process. Bob was unhampered by dating during his college years: he remained true to Barbie, who was from three to six thousand miles away during Bob's studies here. The extra time he gained by not dating, Bob devoted to becoming starting quarterback on the footbell team, lettering three to six thousand miles away during Bob's studies here. The extra time he gained by not dating, Bob devoted to becoming starting "P.O.'ed." As ASCIT president, Bob got to know many faculty members by their first names —at least behind their backs. He especially got to know most of the shining lights of the Geology department, with the result being that he became a devoted geophysicist. It is in this field that Bob plans his graduate stud-ies. When asked, Bob professed to ignorance about his life's ambitions in the distant future (beyond one year). All that the Patchogue, New York "Beaver" would keep admitting was that "in any event, I'll be married."





Francis A. Dahlen, Jr. RUDDOCK Living proof that the Admissions Committee can ferret genius from the most regions of the earth. Tony came to Tech from the culture center of the world, Winslow, Arizona. He arrived locking like a clean cut athlete, but soon took up surfing. Without time or money for the actual sport, he did his best by growing blond bargs. Tony's background of tighting the savage Navajos adequately pre-pared him for his years on the Ruddock and Tech football teams. During his free moments, he studied Geophysics and soaked up a little culture. A summer in New York has left neon signs glowing in his desert eyes and he plans to go to Columbia next year.



## Chemistry



Keith T. Gillen RUDDOCK Keith came to Tech from the Beverly Hills Ghetto on the footsteps of the prophet Abarbanel. Here, in the idealism of his youth, he applied himself diligently and finished his freshman year with honors. As the years passed, his horizons broadened, and he developed his well-known wry sense of humor and cutting cynicism. He dabbled in politics, becoming an EPC member, Junior Class Secretary, and UCC of Ruddock House. He socialized long enough to get mono-nucleosis, and he was the first Tech student to hand in an assignment nine months late. He fell into the habit of solving his problems in euphoric sleep while dreaming of the High Sierras. Yet underneath it all, Keith remains a talented and devoted scientist and a self-appointed member of the Intelligencia. He looks to Wisconsin or Illinois for graduate school to study physics in the Chemistry department.

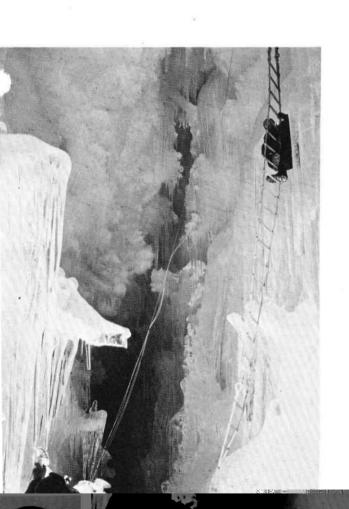
### Edward M. Medof

Roderick C. McCalley

LLOYD









Volker M. Vogt LLOYD The second Vogt to attend Tech began as a typical withdrawn snake, but ended in a flurry of activities athletic (basketball), house, ASCIT (BOC and EXCOM), and YMCA. Inexplicably, his GPA's remained constant enough to give him three years honor standing. As one of the self-styled "responsible" (conservative) bastions in the house, Vogt contributed for several years to the running battle of attitudes and manners en-demic in Lloyd. But it was his involvement in the Y that provided the stimulus to expand hori-zons and find a frame of orienfation in the world. His equal interest in the humanities not having abated. Vogt's future is not fully clear. A year in Europe will probably be followed by grad school in biochemistry someplace in the non-West.

Stephen A. Gorman RUDDOCK Steve, "Super Frosh" Gorman is an example of the Renaissance gentleman misplaced in time by a quirk of fate. His romantic nature has lead him through the athletic fields of West Point, to the fraternities of UCLA, to the cloistered halls of Caltech, where he finally found temporary roost in the Chem option after trying engi-neering and biology. His Renaissance character lead him to be an athlete, an athletic manager, an accomplished guitar player, and a music critic. Un-fortunately, Tech robbed Steve of some of his zest for life and left him with a semi-persecution complex. But, the tuture looks brighter, for Steve plans to bless the beaches of Hawaii or the ski-slopes of Colorado with his dim-pled smile.



rt D. Bruner DABNEY was a local boy, coming here from nearby Alhambra. Once he found Tech a great place to cultivate an interest in music, to maintain a study of Chemistry on the side. Deciding that sistry is worth a little more work, Bob is now bound for grad J: location unknown.





Ray F. Weiss RICKETTS Ray arrived at Caltech very exhausted from his bicycle trip through Europe, he wished to point out. Immediately, however, he regained his vitality, asked Dokken if he was a freshman, invoked the wrath of Karl Pool, Richard R. Burgess PA Dick, constantly praising smogfree Seat came to Caltech a tall, double-jointed, che ist. His interest has since turned tow Biology and he is planning on grad sch at Harvard in Biochemistry and a future Howard K. Ono

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PAGE











Arthur E. Johnson BLACKER Due to his nomadic studying habits and easy-going manner, Art is widely known in our class. His freewheeling style was illustrated on the occasion when he picked up a girl on Colorado Blvd by turning around and asking if she was following him. Underneath this casual exterior, Art takes pride in doing his work completely and well as exhibited on

Carter G. Naylor BLACKER One would hardly expect that someone from Lingle (wherever that is)—Oh, Yeah, it's somewhere in Wyoming (wherever that is)— to go to college, much less a "science school". But Carter came to Tech, and man-aged to weather it out. He also achieved distinction outside the science world—in the Glee Club the Madrigal Singers in pushing







are the salt of the earth. (?)





Malcolm Morrison FLEMING When Malcolm arrived at Fleming House from Lubbock, Texas he radi-ated a disarming naivete coupled with an irrational reverence for the Lone Star State. That the picture was far from complete some became clear when it was revealed that his home-town sweetheart was actually his clan-deting with thereby couston much

## **Mathematics**

### Frank Matthews

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ed by the orld. terested in nite groups hopes to ast to con-interesting

Frank Matthews PAGE Although Frank entered Tech as a Flem, he soon became enlightened and became a charter member of Page, the last one still at Tech. He was likewise enlightened about option choice, when after two and a third years in Physics, he decided that math was a far better option. His interest in computers led to a year leave for further study at IBM. Back again he is sometimes seen studying when discussing sailing or engaging in house or alley activities in-cluding construction of the Great Page Interhouse. PAGE



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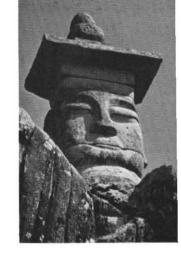
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u - z





Kwok Chung-Mo transferred here from Hongkong in his sophomore year. In hydro the fact that he was born in hydro the fact that he was born in hydro the fact that he was born in hydro is quite friendly and sociable in addition to his capabilities as a math-ematician Chung-Mo demonstrates his proves by engaging in karate and soccer, by engaging in karate and soccer. To search for the truth, Churs Market ducted an extensive survey ducted an extensive survey field by mere talk, he ad the cultural life in our fri to the south, coming to the conclusion that American were often all quite unk the representation theory of and associative algebras, get into grad school in the topic.

David L. Colton FLEM At the end of nearly three years, Dave lec engineering option in class standing as we in absence from engineering courses; the finally transferred to the math option in o lay both his interest and his electives. He s how managed to find time, between in studying and equally intense reading for som with whom to double, to become a membr Tau Beta Pi, play Interhouse basketball, sof

Mike McCammon LLOYD Coming from Hawthorne, California, the "City of Good Neighbors," Mike saw the swimming pool and liked it, so he stayed. After a disastrous freshman year (academically), he re-turned to play more water polo and by the end of the sophomore year was a starter. In his Junior year Mike was elected to the All-Conference Water Polo team as a guard and even managed to earn a letter in swimming when the first backstroker broke his leg. He expanded his ac-tivities in the senior year to include frosh camp as a counselor and mem-bership in the "Secret Seven" of Lloyd. The highlights of the year, however, were his election as co-cap-tain of the water polo team and the winning of the Coach's cup. He will graduate in the math option and hopes to do graduate work at UCLA before entering the real world.



Fred



Gary E. Dahlman BLACKER "Oregon" Dahlman has done a great deal to further the Teryy Baker image here at the institute. Though slightly stubbier and not quite as bald as his idol, Gary has demon-strated comparable provess with three let-ters in basketball, following in the footsteps of such former Tech greats as Roger Noll; two letters in baseball, with All-Conference honors as a senior; and a letter in goll. Well-rounded Gary also managed to main-tain a respectable B average. Upon gradu-ating he plans to marry his Eugene Queen and enter the Actuarial profession as a ris-ing young executive.





Michael J. Lambert PAGE Kept company by his own personal jungle-in-a-pot, L'Bert lived quietly in Page House. Sensing his true calling, he undertook the challenge of Social Chairman. Never for-getting in this connection that "All Women Are Bitchin'," Mike became a prime mover in Page's most successful social team ever. As a UCC and charter member of the YFC and G society, he dissipated the extra energy derived from all that Yummy Chocolate Fudge by singing soft! softly for



### Physics

James C. Whitney DABNEY Jim is an example of the self-improvement which is possible through a college education. Four years ago he roared into Tech on his chrome plated motorcycle looking like a hood from Brooklyn. The years have wrought a remarkable change. He now plans to go to Grad school in physics, and is one of the few men alive to be Dabney Social Chairman for four terms. He will long be remembered for his opinions on the Tender Trap, and his cry "Four parties each weekend or bust!" This June the mature, urban sophisticate, Jim Whitney will roar out of Tech in his chrome plated Cadillac convertible, looking like a suave, debonair hood from L.A.

Frank Winkler DABNEY Frank came from Chillocothe, that's right, Chillocothe, Ohio, to study physics, but it was obvious that he was destined for better things. His fertile wit and loud, obnoxious ties were a source of inspiration. During his stay he participated in a fairly impressive list of campus activities, serving as comptroller and Social Chairman of Dabney House, Beavers President, a member of the ASCIT Excomm, and Senior Class Vice. Presi-dent. As UCC of Elitevia, he led his alley in red licorice eating, beer can rolling, and the eventual overthrow of the House. Meanwhile, he found enough time for studying to consistently achieve honor standing and to win a summer's trip to Japan via the Junior Travel Prize. Come June, we expect to see Frank heading to graduate school, strumming his samisen and smoothing his yard-wide hand painted tie.



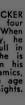


Joseph H. Weiss RUDDOCK From the booming metropolis of Coulee Dam, Washington (pop. 1,000) came a man destined to be one of Tech's most successful physics snakes. As a stalwart on the basketball team, Joe was a Vesper Trophy winner and captain of the '63-'64 squad. Active on the judicial scene, Joe' avaidly applied the proverbial "big screw" as a UCC and BOC member. Joe's ver-satile talents and his ability to snow profs netted him one of the coveted Junior Travel Prizes. His major political triumph came in the hotly contested race for Senior Class secretary. The future féatures grad school-hopefully after a year in Europe.

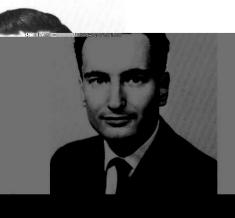
Bob L. S. Ching











William E. Schoknecht BL Wild William covorted in from the wilds of Wiscons years ago, and Caltech has felt his presence ever since not normalizing a wave function or some such activ could always be seen (or rather heard) shooting the philosophical discussions in the Blacker lounge. Now planning to go to graduate school, and hopes to to Ph.D. by either disproving the second law of thermody discovering the magnetic momopole, or determining to of the universe correct to 137 significant figures in for

Spicer V. Conant Spicer V. Conant Spicer came to Caltech from Exeter as a baby-faced aspiring physicist. Leaving as a baby-faced physicist, he has defily exer-cised the art of winning friends and influ-encing people while at Caltech. During these formitive years he has been a Board of Con-trol member since his frosh year, Page House Provident ASCIT Vice President, and are the YCF & GS. A man with unsurpassed savoir-faire and a Mercedes-Benz, Spice will leave behind a string of beautiful and snowed girls as he goes to grad school ("You can't get there trom here") in fluid mechanics, from whence he will step into a job in Big Management.



William S. Cheng From childhood's early steps at College, Penn., the pathu through Phillips Academy, Ar chusetts to alleys of Hell a Pasadena. Then memory resp recollections of physics and ec and karate. Hopeful traili imagination will follow intime uate study in business administ and lenguages.





Nation and

Duygu M. Demirlioglu RICKETTS Duygu came to Ricketts a foreigner and un-pronounceable, but his spirit and active in-terest in the House made these faults for-givable. The fastest butterfiler in 6391 years of Turkish history (and a three-year letter-man), flamers drinker par excellence, a wa-ter-fighter and lounge-ricter more famed and feared than any Sultan of old, D.D. has truly earned the nickname "The Terrible Turk". He has served as UCC, physics-problem-solver-at-large, and EPC chairman. Many have entered his pagan temple joyous-ly, happily—only to exchange their souls for the releatless insatiable pursuit of knowl-

Terry S. Mast RUDDOCK Haining from Beverly Hills and a high school career filled with glittering Van de Graff generators and cloud chambers, Terry's ar-rival at Caltech was apparently the long-awaited answer to the physic department's dream—a truly diligent and dedicated physics snake. His four years at Tech may best be summed up as a concerted effort to dispel any notion that he would one day be the world's greatest physicist. Terry did stop dodging slide rules long enough to be elected to TBP in his senior year, but around Ruddock House he will be remembered for other things. Terry was not the man to

Willes H. Webber Wet Willie, wise in the ways

BLACKER me in State meanders ver, Massa-Heaven in s briefly in mics, guitar clouds of ns of grad-ion, science,

RUDDOCK wine and wilds of



Michael T. Wauk LLOYD Trying very hard to become involved in nothing, Mike spent his frosh year commuting from Covina. After running the wheels off his Austin, he moved into Lloyd at which time course work began interfering with his educa-tion and the GPA fell to a more reasonable level. Futile excursions into chemistry and baseball resigned him to accept physics and women as the only answers to the world's problems. Meanwhile, as UCC of the Inferno and Sleepy Hollow, he combatted the forces of evil and maintained quiet so his hi-fit system could be heard. Mike solidly states that he will do graduate work next year at some far away university.



Kwok-Chu Leung BLACKER Coming all the way from Hongkong as a math major to study EE, Ray (a name Leung picked up after he was here, because his name was difficult to pronounce) ended up in the physics option. He is quiet in public but not so among his close friends. Having spent a number of years in subtropical cli-mate, Ray finds the "snow" at Caltech en-ioyable, though discouraging. He spends his time in studying, Christian Activities, talking in Chinese, and in hobbies like Chess and Music.

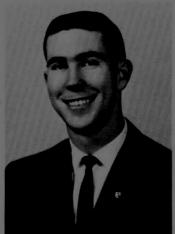


Roger W. Leezer LLOYD Roger Leezer likes to play games. He came to Caltech and played bridge, poker, tennis, and dead. To make himself more well-round-ed, Roger learned to shoot pool, stay up all night, sleep all day, and to smoke and drink. And to play his favorite little game---"How little work can I do and still pass?" He played at being Lloyd House President, and he still isn't sure who won that one. Presently Roger is playing a new game---"Grad school, grad school, who'll let me into grad school?" Rot's of Ruck, Rog.





nis ending thru C had finished end of his two playing and sailin nself S. his CIT's d all is fres himself as one of the co-lists. Starting physics as a he got under the line b his many other activities of Chuck was a member of constructed the greatest nad then wouldn't think Among ast year, which ever a for it. during of the inter-k of a cons



being what it less time tha pursuits, and nistrars



FLEMING to some and frete, the physics de Steve found him-he would like for nd comfort in his olly lines.



Ray E. L. Green RUDDOCK In retrospect, it appears that Ray came to Tech to learn to climb. It started in the motorious Alley Six of Ruddock's first year with alley walking (moving down the alleys without using the floors) and staircase racing (without using the stairs). When these fads died, their champ had to yent his talents elsewhere, so Ray took up rock climbing, and eventually showed almost as much skill at it as enthusiasm for it. While at Tech, Ray also acquired two other rather unusual characteristics—a fondness for late night visits to Tiny Naylors and an abi-ity to consistently be the last one through with dinner—as well as becoming an aficiona-do of the scourge of bridge. Along more conventional lines, Ray played interhouse vol-leyball, and basketball for Ruddock, and also served a year as house librarian. He main-tained a very respectable GPA and was elected to membership in TBP. As a physicist, Ray is somewhat uncertain of details, but he will do grad work in some phase of physics.







OYD



Peter O. Mazur

BLACKER

### George A. McBean RUDDOCK McBoob was one of the greatest swimmers and rationalizers ever to come to Tech. (sniff). Despite a severe whiplashing during his junior year, he set a conference record in the 100-yard freestyle. However, he lacked experience in the breaststroke. (sniff) When not in the pool, Geo spent his time working on his semi-competition T-Bird, and became adept at arching and de-arching rear springs and at removing and replacing the carpets. (sniff) His other activities included BOC, Clique member, McBean machines, and chasing women from Mississippi to Elsinore to Washington. (sniff) McBane plans to get a Ph.D. in physics (1) at any school that will accept him. (sniff)

Richard D. Hake, Jr.

Gereld H. Thomas PAGE A physicist from the word "wave function", Jerry has led Page house to victory as house jock for one year and Chief Executive for another. During his sojourn at Caltech he has performed as a second tenor of note in the Glee Club for three years and commuted to Berkeley almost as often. A physicist even in the summertime, he has organized beach parties and supported many similar cultural activities in his search for a conjugate truth. Jerry's secret calling, that of a philosopher, comes out in the open at occasional moments of inebriation, and his profundities will undoubtedly be purveyed with suc cess to his fellow grad students next year.

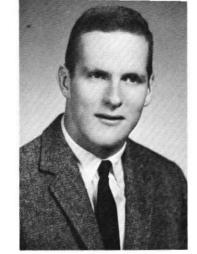




### Tom C. Lubensky RUDDOCK Nurtured on the character-building influence of Foreign Service life and parties, raised to be a music connoisseur, and trained in the delicate art of French horniness, Tom seems to be a poor candidate for a physics career. Nevertheless, he possesses the important qualities of dedication, perseverance, and concentration that make for a good scientist. At CIT these qualities paid off by giving him a perpetual place in the Honors Standing List, membership in TBP, and an ulcer-while still leaving enough spare time for Tom to become band secretary and manager, a UCC of Ruddock, a classical guilarist, and a slave to ''Martyal'' law. Next year, assuming he doesn't ''Hunk'' any more physics tests, Tom will be working at Harvard for his Ph.D. in physics. If he can ever stop worrying about the rest of the world catching up with him, chances are that it won't.



4





Robert F. Christie, Jr.

FLEMING

Martin E. Weiner

FLEMING

Guthrie Miller

BLACKER







### These Really Care

Angel, Edward S. Card, Roger E. Carter, Bruce A. Crocker, Thomas H. Dick, Donald E. Diller, Robert W. Farber, Steven M. Gillespie, Allen R. Harlow, Donald J. Knutsen, Wallace D. Krueger, Thomas E. Lee, Edward P.

Lu, Ponzy Madey, John M. J. Mager, George E. Radke, George E. Riblet, Roy J. Rosenberg, William J. Seide, Laurence I. Sorvari, John M. Storwick, Robert M. Tarby, Theodore J. Teigland, Steve C. Williams, Anthony B. Yeagley, Lawrence

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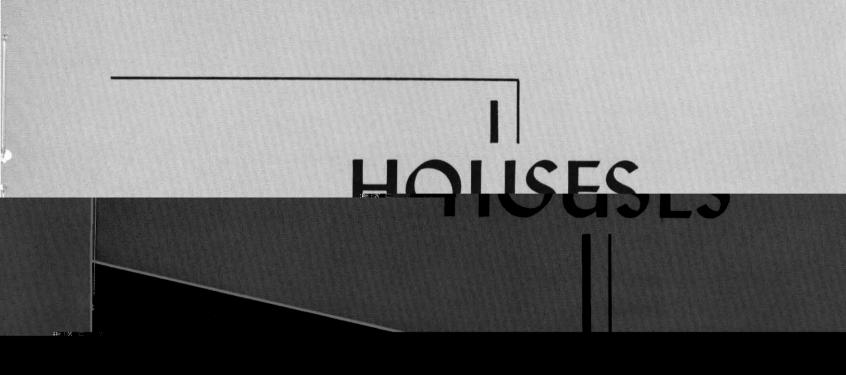
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Abe, Douglas K. Baumgartner, James E. Berger, Robert H. Bolon, G. Craig







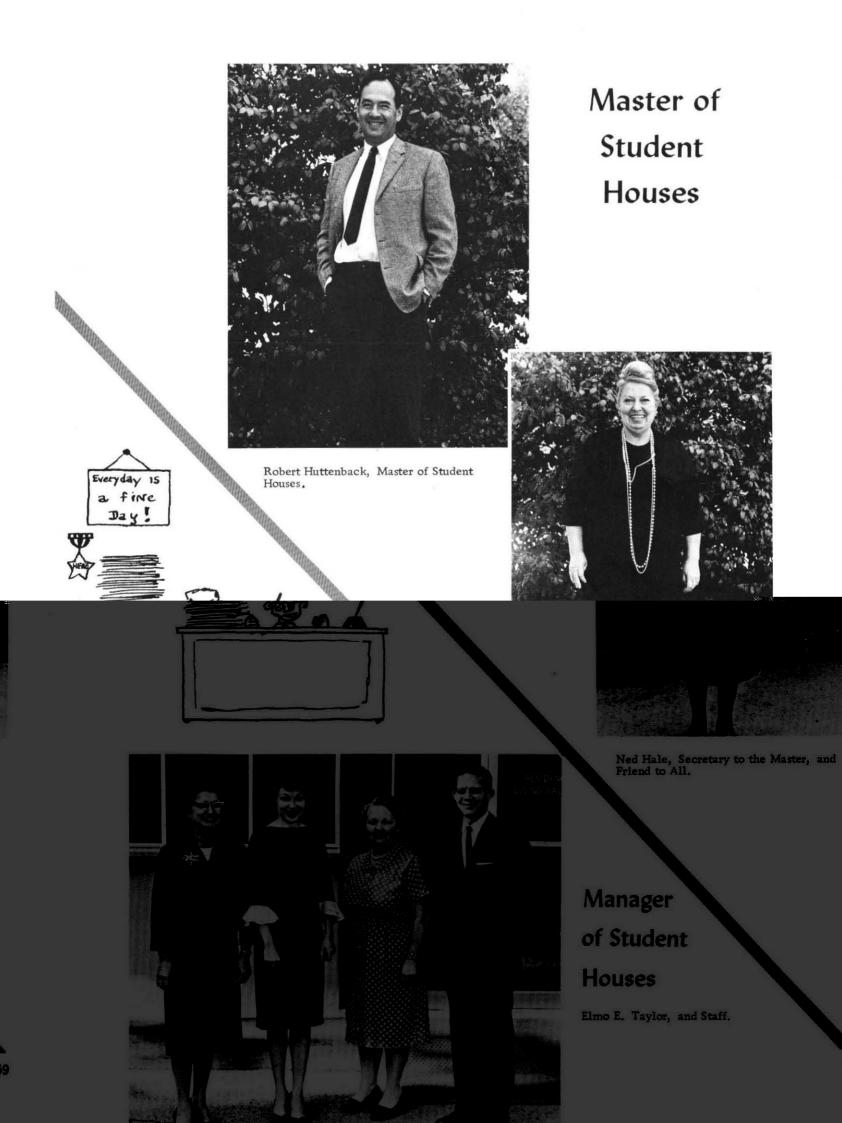


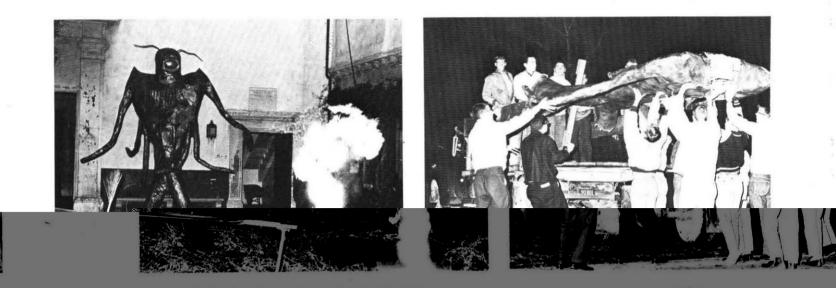
An Editorial

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The Blacker Interhouse Monster (or Freak) at Home...

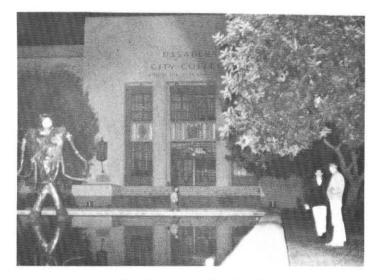
... moving...



Ah. . . one's first view of Blacker House: the grey, d walls (unpainted in years); the large courtyard with its th

rty

# BLACKER



... and in the home of nearby aliens.

And in even more ways: "Honest Al" Tyrrill is trying to sell Urey's car (cheap!) (call SY 3-9865) to Brady (little does he know that Brady refuses to "Buy American"). Mazur, having given up model airplanes and "creepy-crawlers", is trying to repair the damage that Mitchell did to his motorcycle. Bauer is running in another election. Jackson is breaking pop bottles in the courtyard. Joanie just shoved her fist through the window. Mike Ball is working hard on his campaign to set a record by flunking H5 (of all courses!) for the third time. And Bliss is once again "Serenading" Gordon during announcements.

One important thing to consider, of course, is the effect that the great passions and desires of the Men of Blacker have on the Men of Blacker. Well, Mazur turned prostitute, selling his bottle to go on his first date--and for only a fifth of gin (cheap!) (call SY 3-9877). Gary, John, Ron, and Dave imbibed at the party following our glorious double-victory in the Interhouse Sing Contest. Josephson had an automobile accident (he later consulted with John Madey, President of the Physics Club and therefore one of the most important men on campus, and they decided that the Church must keep a closer watch over its faithful members Consequently, the pure and trustworthy laymen, Lathem and Johnson, were sent to spy on Eastment and his girl to see if the relationship met the Church standards. They did (spy) (continuously, and it was (O.K.). . .

The Church also decided that the freshmen should be initiated so they could see "the right" more easily. So, under the direction of John Bopfart, who reigns supreme in Blacker House, the frosh (referred to as "Farters", naturally (embarked on a training schedule even more intense that the one the John Birch Society uses. The frosh were not allowed to use their left hands for eating, for drinking, or for any of the other necessities of life. If they wanted to turn left, they instead had to make three right turns to end up moving in the desired direction. They were only allowed to use naughty swear words like "liberalism", "Earl Warren", "Nernst", "Socialize", and so on down the list of the Bopfart Blue Book. The frosh were sent out to put down the Communist Menace to the north (the big red) )ha!), which they did with ease in an illegal water fight. After this victory, they joined with the converted Scurv frosh to demolish the liberalists in the new houses. Hendrickson was sent to Pershing Square to speak out against the Communist Menace, and he did a magnificent job, proving himself to be a True American.

Though the Church was successful in some instances (e.g. Diebel turned down a date with a

> beautiful waitress at Bob's). It--on the who was unable to control the urges and desires of Blacker Men. Consequently, the Men of Bla were encouraged to channel their energies worthwhile activities. Sorehead George Will immediately responded by taking out a beau petite Social Chairman (female) from Whittien trying to seduce her after first getting her briated. Result: she got drunk, then sick (all his car), William's plan was thwarted, and p tions have since been suspended between Ca and Whittier.

> Dinius and Bliss, also caught up in the spirit of enthusiasm, ran as a team on a prog of pure apathy: "If elected, we promise not to b any guests to the House, not to go to any ExCo meetings, to support any movement to elimit room preferences after the Vice-Presidents

stated that "Ishwash summ drunc dash hish me."). During the waiter's party, someone tried to jump into the Phillipino courtyard from the lounge balcony. And there was a wild (!) party at Drummond's pad. Sherlock and date were stomping. Nearly everyone was sailing along at least three feet off the ground (notably Judy, Joanie, and Linda), and Bliss' girl fell through the window.

Happenings such as the party just mentioned had the Church of Blacker, which rules the world, into an all-out effort to control the raging passions of the Men of Blacker. First of all, in order to isolate the problem(s), the Pope issued a Purity Test (which became the standard of the campus--Ricketts borrowed it to use in preparing their test). This did little but reveal that some impure and mysterious senior got a 22, and that an even more mysterious frosh (!) got a 26. The Pope then

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Seniors



### Juniors

FIRST ROW: Vern Bliss, John Miller, Bob Sweet, Gary Thompson. SECOND ROW: Ron Remmel, Guy Jackson, Gary Scott, Barry Dinius, Bill Zame. THIRD ROW: Amos Levin, Ed Bauer, Doug Josephson, John Diebel, Dave Sherlock.





Interhouse football team in action.

oma too and iceests sent led reneet. ause tting nest

their preferences, to screw everyone but ourselves in the UCC committee, and finally, to be

> so apathetic as to ignore all our campaign j ises." Had they won, they would have be apathetic to take office.

> The Hebdomadal Society was reorganize brought more guests to the House than the President (the ratio Heb. guests to Veep ; nears infinity). But the condition in which the the guests off... And the many "discussion by sober, clear-thinking Ed Bauer that almos sulted in bloodshed...and divorce?

> Floyd House challenged Blacker to a drag However, they later finked out, probably be they heard about Jackson's 1960 Falcon a shut down by an n-owner car straight off of B

Yes, living in a House with Men who have great passions and have great and varied interests is obviously rewarding. And once again, this low pressure, do-what-you-want-to-do House of Individuals has proved itself the best House on campus.

Blacker House also had its first annual Christmas party and oift exchange presided over by use

Santa Serafin, who was in a very appropriate costume. Sign-ups for the gift exchange were slow until Green and Mazur, infused (or confused) with the spirit of the season, "persuaded" people to sign up. Gifts were cheap, but appropriate Pate showed new book on sex techniques to Johnson. The grateful Johnson offered Pate one of his newly received road apples in return.

Fearless Leader and Everybody's Friend Phil Graul taking a ride.



What'd I say?



and finishing second in Varsity Rating. It tied for first in the Interhouse Bridge Competition, and held the Interhouse Bowling trophy for half the year. To show its exceptional competency in all fields, Blacker also won the Scholarship (Snake) trophy. Then it pulled off perhaps its most satisfying coup by winning both the House Chorus and House Quartet trophies in the Interhouse Sing Contest, squelching the obnoxiously over-confident competition.

Rotation with seven degrees of freedom? With an unprecedented absence of the familiar really care, the men of Dabney tackled the new rotation process determined to come out on top. Leaping into the arena of human (?) relations, we began frantically sorting out the frosh from the lions and Christians. After careful sorting, froshlings were meticulously cleansed (with well-placed towel tosses and shaving cream), then were processed and packaged by the Terrible Ogre from the West and a resident of the happy hunting ground. With an attrition rate like that, we could appoint 20 pledgemasters for next year and thereby provide everyone else with second team singles. All in

all, the new trosh seem to have given the Housis shot of enthusiasm in the arm, or some of

Marching to Elitevia? Yes, the members of the Alley Two home for unwed fathers staged a temporarily successful secession from the United Alleys of Dabney House. The high points of the revolution were the football game with Alley Seven and the annexation of the new R.A. to the Alley with full social membership privileges. Are you sure he's an Aryan, boys? After an unsuccessful sorting out attempt by the pyromaniacs of Alley One, the Alley movement began to deteriorate from within its ranks. Probable causative factors include a series of 3-4 hr. local phone calls made by one eager froshling and a problem with the veritable wall of odor created by another alley member's feet. Always watch out for the Enemy Within!

Kicking off the fall social calendar was the traditional game room floor cleaning party. Please pass the pretzels! After all the foam was either consumed or used in floor cleaning operations, the men of Dabney followed the star in the north, making the traditional pilgrimage to the Home of the Big Boy. Then there was the Grand Amalgamated Exchange -- a veritable plethora of bod, someone for you and me. Hold it, Milstein, with 200 girls at Winnett, why steal Reiland's dance partner? That's certainly a night that Rock gathered no moss. By the way, Pawl, how's your GBH? Made any phone calls lately? The Party-Party at the Schusters convinced the upper-classmen that the frosh were social lions, even if they spent their spare time chasing their own tails. Blackboard charades were fun, but by the end of the night no-one could read the board, and some were asking which one. The M & M mixer was the first house exchange of the year, much complicated by the lack of a chaste euphemism to go with the initials. Then came interhouse. Interhouse is garbage cans of hot papier mache, wastepaper baskets of plaster of paris, Clauser breaking tiles on the roof, and Whitney's Greek equivalent of King Kong. Interhouse is colored columns of cheesecloth sewn together by house seamstress, John Simpson. Interhouse is the dance that you plan for weeks in advance and are almost too tired to attend when it comes. The first term barn dance was held in an extremely large refrigerator, thereby providing motivation

### Juniors



FRONT ROW: J. Yee, I. Lok Chang, J. Hsu, S. Christman, N. Wright, B. Scott. BACK ROW: P. Swatek, C. Dalton, J. Gowen, R. Davisson, J. Comly, L. DePriest, G. Repasy, L. Fraas.

## Sophomores





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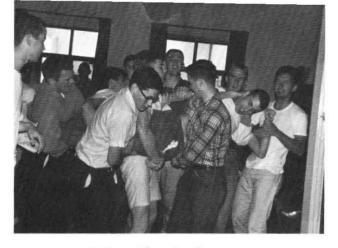


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Given any random time, take the absolute square of the probability amplitude and you will find the odds are high that: Powell is explaining a physics problem to Dr. Wilts, Beamer is seeing double or nothing, Flindt is going to go and do something, Touton is on the phone, Gliders and bottlecaps are sailing in the courtyard, one and one-half games of Scrooge are going on in the lounge, Yee is in the lounge, Gowen hasn't returned to register yet, Wright has changed his hairdo, Christman is playing "Pipeline" on the



Dahney Cleaning Ceremony

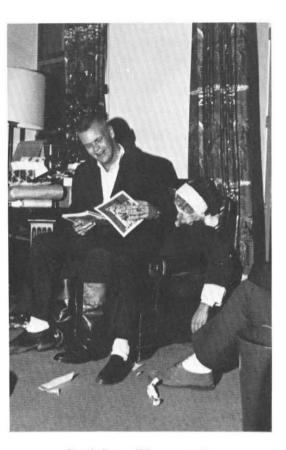
Milstein is talking Alley Two is blasting Alley

all Campus Mixer provided another increment of bod and again demonstrated an almost forgotten phrase: "The party is always at Dabney". A four headed social chairman and a spark of enthusiasm gave Dabney the best social term it had experienced in recent years. Did your date for Monte Carlonight keep asking who the handsome bearded croupier was? "Green Onions" went to the couple with the most confederate money, but everyone seemed to win at this party. Then came the French party at the Day's. Spirits and aspirin bills were high that weekend. Aside from Mr. Zorthian's art work, the barn dance was a complete success, with Dabney bringing home the Flamer's Trophy in grand style. What to do on a Saturday afternoon? Hop on up to Erdmann's for a barbeque and a quick dip. Make that a frozen dip. After which comes the snowiest weekend of the term! Skiing is for party poopers, right Schaar? In the first performance given in the concrete mushroom. Bud and Travis managed either to consecrate or desecrate the place depending on your point of view. The term finished with the Dabney House social institution, the Party-Party, a real success with its punch and well-timed food.

We wonder what would have happened if: Nobody had bothered to bet Rich Unrich off the wall of the courtyard, John Vitz would have scaled the palm tree to retrieve the volleyball, Kampe had showered Whitney alone, Burke's pants had neverbeen retrieved, Harslem had changed his socks, Langton had flunked out, Chaikin had actually lost those extra pounds, and the Alaskan Earthquake had occurred a few thousand miles south of Alaska.

An epidemic of chain letter fever fell upon the student houses during a period of low resistance (Low resistance is defined as that time when your allowance has just arrived). Even the house was infected for a short period of time. Antibiotics in the form of other potential "marks" were soon to remedy the situation. I wonder if you realize that action starts with AC. The great holding company pyramid under the able architecture of John Burke collapsed with a ston i shing speed when it was learned that the foundation was sand. Possible.

epidemics in the future include: orange spotted fever, caused by venturing out in the courtyard in early spring; sleeping sickness, caused by not sleeping; and apathy, spread by carrier John Vitz. As we watch another year flying to a close, we wonder about those questions which Feynman never bothered to answer in Physics I and II. What can you do with a tarnished shovel? Whose was the big green elephant in Mr. Dabney's past? Is the plaque in the entrance-way really level? Will Dynamo Bob and his gang save campus from apathy by sicking our elephant on E.E. Taylor? Is the Saga Manager's wife a good cook, or will he begin to slowly waste away? Was your brother an only child? Only time and your hairdresser know for sure, and only time will tell. Hi-O Dumbo, Away!



Quoth Santa "Nevermore"





Thinker Darb turns statesman.

Scene--lunch in the Fleming House dining room on the last day of rotation. In the course of the meal the visiting freshmen are thoroughly ignored, except when waiter Chidley spills a bowl of soup on one of them. President Bill Schoene spies a lull in the general roar and siezes it as an opportunity

1

announce the current visiting YMCA theologian-his third try this week. He is greeted by a hearty chorus of boos, sits down, and is promptly floated.

It is now 12:15, and Schoene decides that lunch has lasted long enough, and he closes his speech with a reminder to the frosh not to believe "any of the range true lines on the believe bearing the lines."

to expound enoughe unit upon the onities of rienning. the onities the house bell and appears from behind a pool of milk at the head table.

Schoene--"I guess you've been noticing our casual attitude toward living around here." (Much laughter.) "But the hallmark of the Fleming way of life is that we know how to behave as gentlemen when the occasion calls for it " (At this point Owens Rotation Fleming House style, under the ab direction of Schoene and Hillyard, proved a hug success as the virtues of Flemingwere presente honestly and effectively. Unity through individuali was stressed, and as a result we obtained a high diversified and gung-ho frosh class. The year be gan as Frosh persecutor Gerry Haven and h large chunks of rock, pipe, and the House treasury by Mike Scott and his chain gang, featured a sequential series of water-jet displays, each accompanied by its own array of colored lights. The approach in the interior was somewhat different; Rome was suggested surrealistically by creating walls and columns of crete paper. In keeping with its tradition of providing entertainment for the dance, Fleming put on a show featuring singing star Judi Thor and a short play, "Oedipus Rex." The completed job was so suggestive of ancient Rome that Holford managed to bring a date to the dance and not find out what the theme was until a week later. Or didn't you ever make it to the dance, Doug?

As the year went on, various personalities asserted themselves and flourished briefly. Nady attended some sort of clinic in TJ and returned several of his physiological processes remarkably modified. Dave Colton's four year career as House announcer of math club meetings drew to a close, much to the relief of everyone. Manolo Huerta learned the difference between an abortion and a miscarriage--without having to endure either--and earned the privilege to speak in polite company. Third term the entire senior class save Weber, White, and Harlow moved off campus and grew beards. White finally gave in to irresistable popular demand "Weber, White, and Harlow!" and went home to mother. Jim Simpson ended an exciting year as "horniest sophomore" and faded into obscurity. Walt Davis gave up the position of "House Sheep" to gain the treasured Horns trophy. Lanky Dave Jarvis won a date with a Whittier girl by describing himself over the phone as "about nine feet tall." To her chagrin, she found out later, that he was. Russ Brill finally threw in the towel and turned over the chore of pimping Whittier to Gordon Myers. IHC became firmly established as the place to go for "quite good looking" blind dates. Finally, the Fleming House Micky Mouse Club a chieved new heights of romance, intrigue, and nausea. Lerry and Jould, self-appointed guardians of Beckman, discovered in one of their many exploits that the hollow ball at the top of the circus tent ceiling was removable. Naturally, they removed it. While Jould was busy filling this with sand in the basement, one of Tech's fearless, ever-vigilant, 104 year-old guards discovered that the ballwas missing from its normal position. The next day the building was sealed off under lock and chain. Since Lerry is the person on campus who could possibly be mistaken for a B & G troll, he grabbed his army helmet and clipboard and supervised the rehanging of the ball.

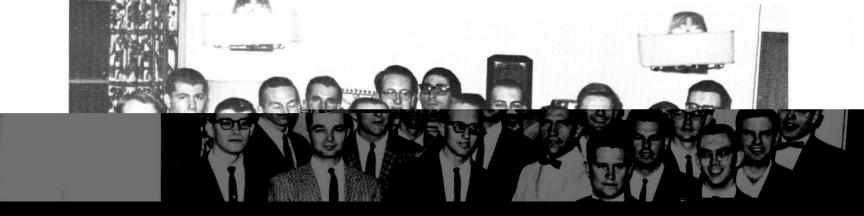
> Men of Fleming visit Aunt Jane, who is Tecovering from a recent illness quiet border town.

# FLEMING



Willing-student Gillon learns rapidly in Fleming House dance class.







him cred To everyone's dismay, the two somehow managed to avoid arrest and life imprisonment somewhere. No account of life in Fleming during the year screened-in and locked back seat, accusing of depositing nephral products upon the s cobblestones of his majesty's sterile thor mously agreed that three Mormons on anybody's executive committee was too many.

It was in the arena of athletics that Fleming came into its own this year. Again and again Big Red stormed across the fields and courts of TP, and when the dust settled at the end of the second term, the Men of Fleming had competed in seven consecutive Discobolus games, each in a major sport, and had seven times emerged victorious. The win streak set a new Institute record (the old one being held by Fleming) for consecutive victories. In addition, it was the first streak in which all six of the other houses were defeated.



Fleming took possession of the trophy in late mak January, by challenging and defeating Ricketts in football, 34-19. Co-athletic managers Roger Card and John Nady, and later Simpson and Jarvis, provided the "Big Red Machine" with great leadership as each of the other six houses challenged in turn and each was turned back defeated. A week after the Ricketts victory, a talented football team lead by Bob Christie edged Lloyd 32-25. Next Ruddock fell in Soccer 1-0, to a highly spirited team captioned by Jibayo Akinrimisi. A week after this Fleming added three more points as Page was defeated in softball 10-5. Next came the thriller of the series, as Blacker fell to Big Red in basketball, 40-38, in overtime. Then Dabney passed its challenge, and Fleming beat Ricketts in Volleyball. Finally, Dabney challenged in tennis, and emerged on the losing end. Meanwhile, Fleming has been in first place from the start of the year in the Interhouse sports arena, winning softall and swimming and placing

Portrait of typical Tech students as seen by Pasadena Police.

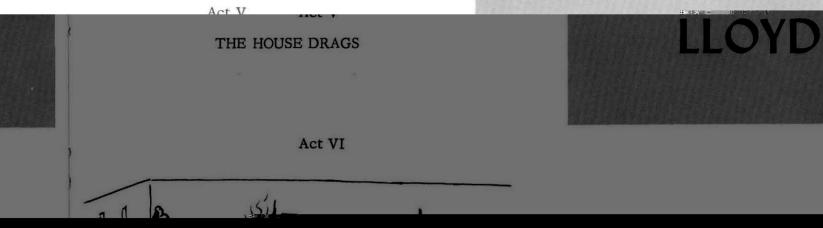
makes a night deposit in a local bank.

ELECTRONIC DR.

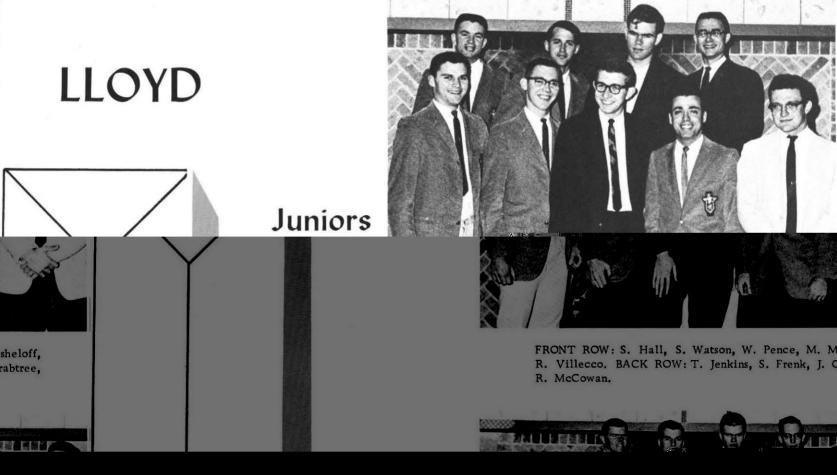
Portrait of a typical Tech student as seen by local businessmen. And then there were 65 . . . Once there had been 81. . . Justice is blind (B.B.). Life goes on filled with traumatic experiences -- rape, kidnap, love, hate, frosh. The plague has passed leaving its scars. The Medof has passed dragging its car. Leezer and Pence have passed on, for, by and out.

The phone rings... It's Howard. . . "Where the hell is Pence?" He went out to eat. "Damn." Libby looks in the door. . .Beeson puls his pants up. . . S. D. is 1/8 c. . . . Elections . . . Pence for Prexy . . . Medof sulks . . . CDW for soc. . . TJ rules the UCC . . . Skippy wears a wet suit . . . the Phizz majors take gas . . . the man of strongth for strength if Wils . . . FINICAL IS A PLOCKHERD

BUT WATCH THOSE THUNDERBOLTS . . . What's the In fer? NO. Findlay plays with organized and but the same











## Kovac takes on the House.

.

Quick somebody, get a cross!



- 4

#### Act X

Palmer's gone sosh, and Frenk is horny. Him? That's Mr. 193. And Him. He's one of the three. . . er two. . . He's the horseman. Where the hell is the Interhouse Trophy?

### Act XI

Scene: Lloyd Lounge-2:00 a.m. Props: Palmer and Kovac wrestling, Howenstine jumping on and over sofa, breaks same; Gold doing the Gold with Wilson; Bradford reading PL; Leezer and Perry watching the Late Late Show; Villecco bothering Bradford. Leezer: Oh, Goodeey Bradford: I don't think so Perry: Jean Harlow Villecco: sure, why not? Leezer and Perry: ohh, (orgasm) Howenstine: philosophically speaking Kovac and Palmer: ooooh (orgasm) Kovac: Not that bad Gold and Wilson: f=ma (orgasm) Gold: Wilson look, the minimum path . . . enter Stallard skipping Perry: 1937, an oldey but goody, (sarcasm) Stallard: say, who want to go eat? (silence)

#### Act XII

Basketball 1963 Angel's got the rebound. . . Aw, get up Eddie. Bailey shoots---swish, great. WE'RE LOST. . . Send in the scrubs. Lucas has it under their basket! How the hell is he gonna get outa there? . . Oh, I see, he puts it in, IN THEIR BASKET!! argh.

Tennis 1963 What fool lobbed it up to Bradford? There's "Poop ball" Gillespie wearing out another one. . . Whaddya mean we only took second. . . Oh. . . really?

Softball 1963 Whaddya mean strike three? Oh good, Leezer got a hit, no get the right . the right fielder threw him out. Ah, Hake's got that one--no, he dropped it. Allen told me there would be days like this. . . We won? HOW?

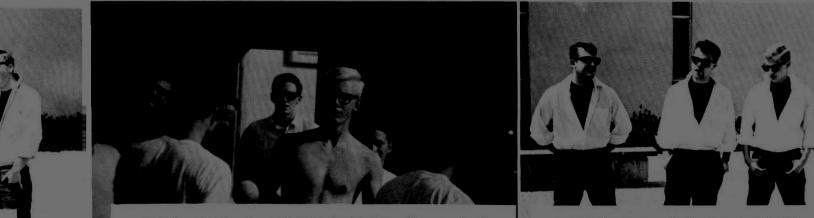
Swimming There they go. Williams is leading. There's the flip turn--where'd he go We lost.

Football 1964 RAZZLE DAZZLE. . . Hake hikes the ball to Gillespie who fades back. . they've got him. . . No. . . he lateralled to Crabtree. . . running. . . No. . . he passes to Bra ford. . . Bradford runs brokenly. . . Ah, he's in for the score! Gillespie passes to Howenstine f the point. Crabtree kicks off the third time. . . Peterson makes the tag. Roland intercepts? Game over. WE WON.'. . . you can't beat luck, and razzle dazzle.

Track 1964 Hey, the track meet was yesterday. . .whaddya know. Did we enter? It's n clear. Where'd we place? Third. . .whaddya know. . . It's not that bad. Volleyball 1964 What the hell is volleyball?

### Act XIII

It's the big game folks. Inferno vs. Fingal's Cave. Second half, Leezer sends Pence and Beese in to get Alvin. They've got him boxed. . .Beeson dives. . .why is Pence's nose bleeding? Whe is Alvin. . .get up Beeson' The Inferno wins. . . Live evil.



... and after she ripped my shirt off she tried to pull my pants off...

... considering the gravitational potential of the moon



This being a history of the House for one year, it shall not be limited to the events of the school year 1963-1964 only, but will also include the ennobling events of the third term of the Third Year of the House, the Year of the Pangolin.

The most famous of the events of the Third Term of Year Three was the Great KSMPAWYAP (Keep San Marino Police Active With Your Antics Party)...As.recorded in





For the record, the late Dennis McMahon (1.0, 0.9), bested Herbert Jubin in the Oberg Memorial Bust-busting Contest. Requiesce in pace. Mens sana in corpore san.

The acme of the Marry-Off-Jim-Davis term's social program was our fabulous Interhouse. Under the watch-

of ChiefyCororrentiarConstitution Halland effection and, Ed-Gordy, and Frosh Merithew (who even had Lloyd frosh working away), Page House was once more a mass (or is it mess) of tunnels and caverns. The inside of the lounge was transformed into a cave, complete with Das Sparklenmitglowenunddrippendunkel Cavern and the Punch Stalactite. The outside featured a hot springs (honest to goodness, hot water!), paint pots, and that great natural wonder, Old Blowhard Geyser (with real B&G steam). The surprising thing was that we actually finished construction early, so we could worry about snowy fine details.

Oh, how the paper-mache glopped all over the chicken wire. Staples stapled, nails went in (crooked), wire was strung, but surprisingly everything worked! The geyser stole the show, its secret control device changing it from blurp, blurp to a fountain of steam that was visible all over campus, even in Blacker. Snow flew everywhere.

The rest of the term happened, then came that infamous week known as Finals. The Frosh snaked diligently, but soon found out that it was futile.

Second term saw a rise in popularity of board games, as bridge lost attendance to Risk, Diplomacy, Monopoly, and others. The entity known as the Rat Pack started the fad by seducing unsuspecting frosh into playing Diplomacy, a game which usually lasted several hours.

The social program second term was more of the

# PAGE





## Sophomores

FRONT ROW: P. Ash, J. Lau, R. Nielson, B. Hoerner, J. Brooks, L. Gordy, J. Pearlman. BACK ROW: R. Greenwood, F. Mayer, C. Scandella, R. Silver, J. Aries, T. Miller, R. Bunker, D. Radcliffe, L. Newman, T. Resney, R. Bernstein, D. Close, R. Weatherwax, W. Colglazier, J. Mowery, J. Trijonis, J. Kabell.

## Juniors

1

FRONT ROW: S. Garrison, R. Whitlock, W. Ryback, J. Harkness, P. Ryan, D. Levy. BACK ROW: D. Oberg, R. Hendrix. NOT SHOWN: D. Payne, D. Price, R. Lane, D. Hixson, L. Hall, G. Fitzpatrick, J. Follansbee, K. Kunen, T. Simpson, D. McCreary, T. Menzies, J. Radin, N. Wilson





## Frosh

FRONT ROW: C. Carlyle, D. Goodmanson, D. Rud, P. Balint, P. Theisinger, L. Merithew, T. Beale, M. MacDonald. MIDDLE ROW: A. Porter, P. Sheng, K. Nordsieck, M. Mandell, B. D'Ambrosio, G. Engebretsen, G. Schnuelle, T. Fujimoto, I. Hoshor.
BACK ROW: L. Karr, R. Dickinsco

BACK ROW: L. Karr, R. Dickinso W. Rippel, R. Ligon, J. Dessing D. McMahon, J. Pomney, K. Gibso R. Schor, G. Swartz.

# PAGE

## Officers

#### OFFICERS--

OFFICERS--FRONT ROW: Johann Lau, (Secretary), Jerry Thomas (President), Chuck Holland (Social Chairman). BACK ROW: Mike Lambert(Social Chairman), David Posner (Librarian), Roger Hendrix (Social Chair-man), Tom Resney (Athletic Manager), NOT SHOWN: Dick Burgess (Vice Pres-ident), David Holtz (Treasurer), Jack Beauchamp(Social Chairman), Bob Bunk-er (Athletic Manager).



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## As midterms came around, strange sounds started emis.

nating from the Page Lounge after lunch and before of One close examination, a tone-deaf listener might conthat it was singing. But he would be wrong. For it we Page House chorus bellowing their way through "House (from Berlioz's "Requiem") and "O, Welche Lust" (Beeth opera, "Fidelio)"). Led by Roger "Frodsham" Hendri featuring our hero, Jim "Magnolia Mouth" Davis as he first tenor section, the group faked out the judges at house Sing and walked out with their third straight place. For this great feat, Hendrix reigned supre honorary House Hero for a week.

The last few weeks of second term heralded that

A Elbereth Gilthoniel, silivren penna miriel o menel aglar elenath! Na-chaered palan-diriel o galadhremmin ennorath, Fanuilos, le linnathon nef aear, si nef aearon!

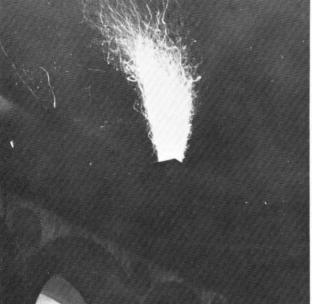


A day of infamy... the post-dance chaos.





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Boom!

1963 was the year the legendary Ricketts Rotation Machine was put back into operation after years of disuse. In contrast to the storied cut-throat tactics of old, no attempt was made by the House to "run down" any other house; Rather, simple reference was made to the indisputable fact that Ricketts is the only house in which it is possible to live for four years and not become a pervert, a boor, or an idiot. With this softsell approach and after a lengthy, democratic house meeting at which it was decided which froshwere better than which other frosh. President McEliece and Resident Associate Townes attended Dr. Huttenback's meeting, took the freshmen they wanted, and merrily watched to find out who was going to get stuck with numbers 180-190. The next week was a heartbreaking e for Rickatte as frashmar after frashman beared ............

to be let in. But there's only so much room top, and all requests were, regrettably, ign

Although, as indicated, the freshmen Ricket were, to steal a phrase from Kloke's, the obtainable, "nevertheless, they were, as a miserable specimens of humanity. The long pr of building men (Ricketts build men, in case hadn't heard) began with the traditional init foolishness. One freshman (whose name is witheld, but whose initials are Pete Cross) see

# RICKETTS



the elbow is a work of art. (It's also a lot of fun: overheard from Landis while he was elbowing freshmen. Phil Paine: Oh, oh, I'm in deeper than I've ever been before.)

Ricketts had the coldest damn Interhouse Dance

"Duck!"



Seniors





During second term, the freshmen wanted to get the brakedrum, thanks to Ray Wooolsey, who joined the ranks of Terry Murphy by having the thing discovered in his room. Actually there weren't really enough sophomores left at that time to comfortably carry the drum, so maybe it was for the best after all.

Ed Bloomberg tried his best for six weeks to teach the house Beethoven, but all to little avail, as Ricketts finished a disappointing third in the Interhouse Sing Competition. Oh, well, "Emitte Spirite Tuum." (That means "Wait till next year" in Latin.)

By far, the most interesting things second term were the various elections. The ASCIT Social Chairmanship continued in its Ricketts nepotism as Jackson, promising to do "won-ders for your egos." was elected to that high efficience. But once

Nice thing to do!

71

ÍΤ.

most astounding was Randy Cassada's election to As President, the general reaction in the house was somet like. "Oh God, you mean Cassada's going to be Preside

Gimpy Ed McCallough is leading the house basketball squad, Nervy Bill Satterthwaite is plugging the Carnival Party, and the House is getting ready to lose good old Harry Townes.



Calibrating? Ho, Ho!



One day many years ago while the great god Frink (José to his friends) was relaxing over a Another McBean Ma-"Frosh are good for naught save work." Since

this tim bridge.

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# RUDDOCK

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# Ruddock



Executive Committee

LEFT TO RIGHT, TOP ROW: Bill Broste, Dimitri Papanastassiou, Don Terwilliger. SECOND ROW: Murray Sherman, Bill Meisel, Bill Weber. FRONT ROW: Stu Davey, Phil Liapis, Mike Cosgrove, Dave Hammer, Steve Gorman.

LEFT TO RIGHT, TOP ROW: Al Hindmarsh, Jim Hole, Dick Stanton, Russell Hageman, Bruce Beeghly, Tony Dahlen, Ray Green, Jack McKinley. FOURTH ROW: George McBean, Dan Paxton, Joe Weis, Tom MacDowell. THIRD ROW: Dave Hammer, Bill Meisel, Bockett Hunter, Keith Gillen, Steve Gorman. SECOND ROW: Terry Mast, Bill Weber, Mike Cosgrove, Don Terwilliger, Dick Karp. FRONT ROW: George Preston, Bob Liebermann, Lola, Tom Lubensky.

Seniors





LEFT TO RIGHT, TOP ROW: K. Brown, M. Roshbash, T. Pucik, M. Sherman, J. Turechek, E. Kuplis. MIDDLE ROW: S. (Mole) Chapman, A. Niell, D. Papanastassiou, T. Green-field. FRONT ROW: F. Nakamoto, L. Neidengard, G. Black-inton, P. Freeborn

Juniors



## Sophomores

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With a rock from Caltech Mountain.



Lola eside cuscould fica-

ntage

The Beatles strike again!

The gin sponge soaks something new-

was John Turechek's Holy Grail which sat majestically in mid-air all evening and happily burbled punch for the befuddled masses in the lounge. Then it was over and Liebermann's gang set yet another record in demolition Sunday morning and House members awoke to find themselves transported back to the harsh reality of impending finals.

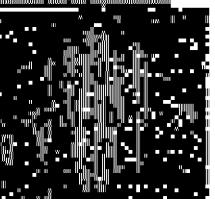
Finals were the usual levelers as Ruddock lost twenty per cent of its none-too-bright frosh class, and the future of the other 16 looked none too bright either, as they returned to try and survive second term.

Meanwhile the profligate Grik's iron rule over the dining room (I'm not righteous, I'm right!) was.

> finally drawing to a close. And also final was captured from Alley one, to eventually in Alley Six, which promptly instituted a ne tom and kept her in the library, where sh now be "checked out like a book" for the gra tion of all House members.

Having been satisfied with the initial adv





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another year of editorial dominance by assuming control of the Tech (jealous of the glory of their



Our masterworks drew large crowds

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	NULL IN THE		电波 司			승규와 왜 해서 그	
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predecessor (ahem!), they began a ridiculous spi campaign against Chem E's which failed miserably Mike Rosbash triumphed too and assumed his ne job as BOC secretary alongside newly appointe member Marty Smith.

The survivors turned immediately to House elections, where Kendall Brown became prexy in three-way contest. Tom Greenfield brought artist excellence to the office of Veep and Shelby (the on good mole is a wet mole) Chapman proved th even a mole could be Ruddock House Secretar John Turchek proved he was the biggest bitch in th house and became treasurer, while an incompetent triumvirate of Greg Shuptrine. Phil ("I feel good

# The New Booth Computing Center

The handsome three-floor Willis H. Booth Computing Center building and the large IBM information processing facilities contained there in were dedicated during all-day ceremonies before guest watching through the medium of closed circuit television Monday, December 9, 1963.

The computer complex, capable of remembering 43 million computer words, will enable students, faculty members, and research facilities to make full use of the system at any time. The heart of the computer complex is two IBM computers, the 7040 and the 7090. Caltech engineers and IBM engineers worked together to join the two so that the 7040 monitors input and output, leaving the larger 7090 free to do more complex calculations.

Communications to this "heart" of the computer complex are handled by an IBM 7288 Multiplexor. This device links the 7090-7040 complex to other units on campus, such as the Burroughs 220, and data-gathering units capable of controlling and gathering data from experiments.

The system is designed to handle a wide variety of

proorems firmulaneously, parlenet intervention of the reassigned to either the burroughs, the 7040, or the 7090. The 7040 may stop the 7090, direct it to a more pressing problem, and then redirect it to resume the original work.

The computer system is simple to use, for it is designed for easy programming and corrects its own mistakes. When operating at full potential, it will be available to any of



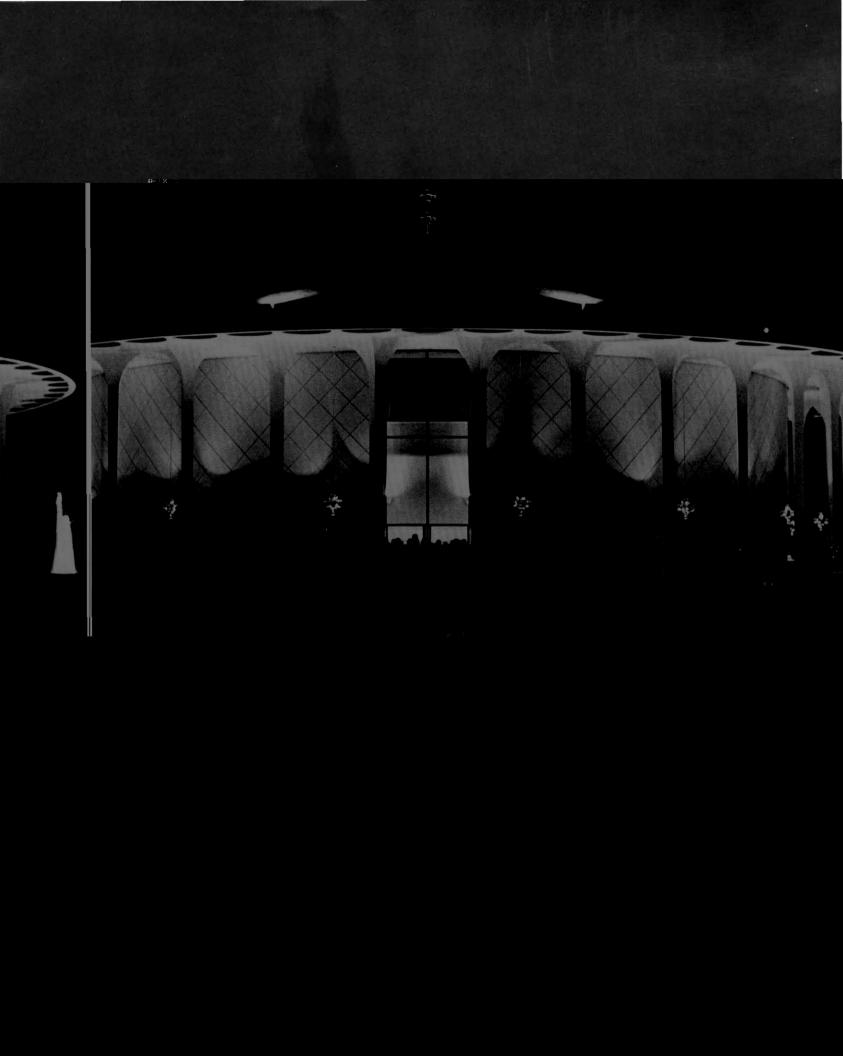
## The Beckman Auditorium

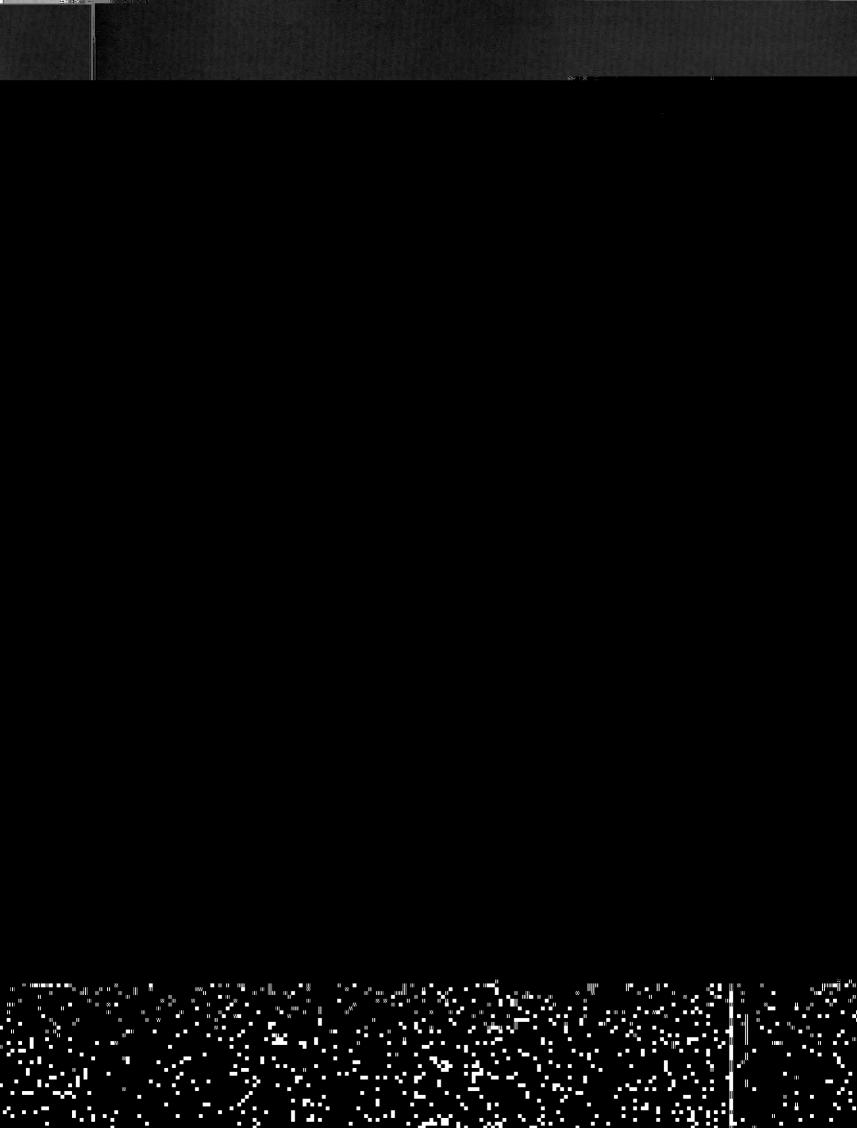
Arnold O. Beckman Auditorium is perhaps the most impressive new addition to the Caltech campus. The Auditorium, which contains 1171 seats, cost one and 45 hundredths million and took 18 months to complete. It is 60 feet high and 120 feet in diameter. Topped by a conical roof of concrete with 32 gracefully tapered columns which splay out to support the exterior overhang, the Auditorium has truly deserved its 1963 Pasadena Beautiful Award. The roof is decorated with gold-clustered circles, and is topped by an 11-foot-high finial mounting two clusters of perforated brass spheres 14 inches in diameter. Clusters of six spheres are suspended from the colonnade ceiling to provide outside illumination.

Beckman has been in active controversy since the first plans were announced. An early addition to its questioned beauty included a large Texaco star. courtesy of Lloyd House. Further additionance planood are

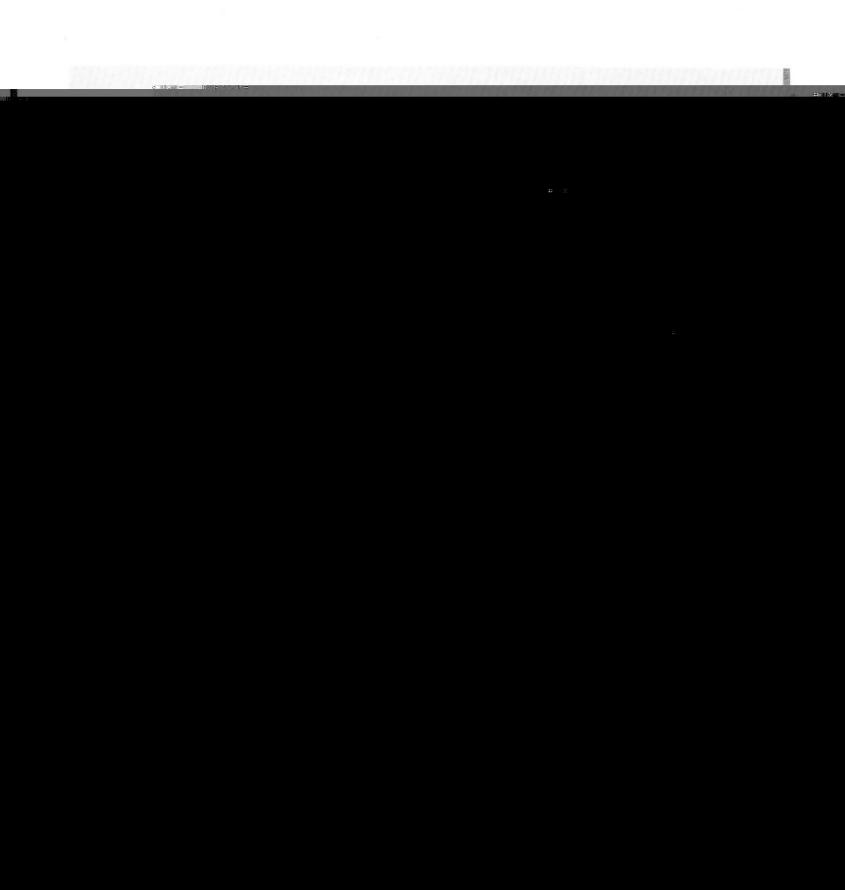
for the future. The mushroom has also picked up a large range of pet names such as Carosel, The Gas Tank, The Pregnant Missile, and, courtesy of Bud and Travis, Lazy Suzan. The pristine white walls, the glittering gold ceiling, the crimson carpeting, the striking mall, and the various gadgets on the roof have all helped maintain an active student interest.

The dedication took place amidst a capacity plus crowd on Tuesday, February 25, 1964. President Lee A. DuBridge presided over the oneand-a-half-hour proceedings, which he called the <u>"most important</u>

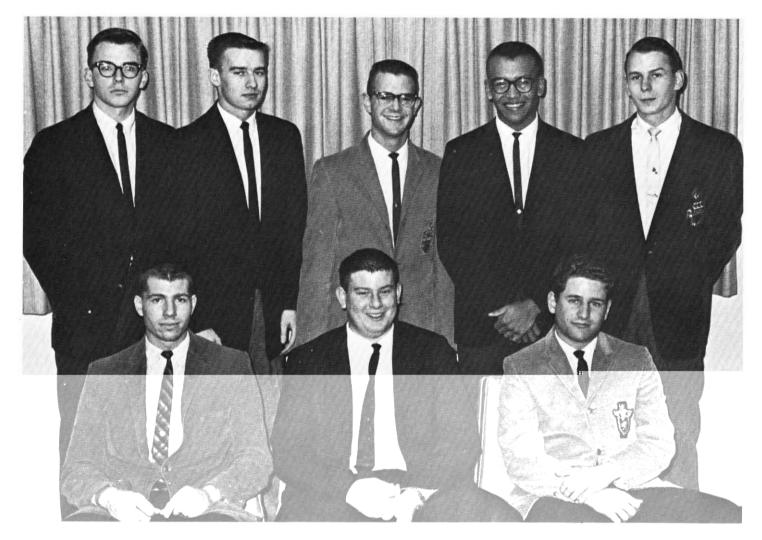




# ACTIVITIES







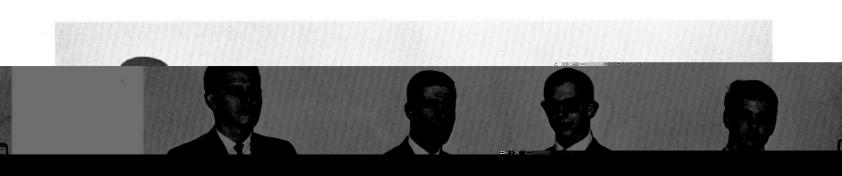
LEFT TO RIGHT, SEATED: Bill Schoene, Fleming: Dick Karp, President; Ed Medof, Lloyd. STANDING: Bob McEliece, Ricketts: Art Johnson, Blacker; Dave Hammer, Ruddock; Jerry Thomas, Page; Herb Flindt, Dabney; Rodger Whitlock, Secretary (absent).

"What's the matter, don't you trust us Johnson?"

It was on this note of mutual respect and realism that the Interhouse Committee carried out its duties. For the first time in four years, freshmen were selected by the seven houses. Although under a system somewhat different from the old one. It took only two and a half hours and several six-packs for the great seven to divvy up the frosh for mutual benefit..."Blacker!" "Un, let's see, I think, R. Troll." "R. Troll says yes, Blacker has R. Troll." "Hey, that was number 179." "It was our number 190, whee!"

Other triumphs of the Mighty Seven included the acquisition of original jurisdiction in disciplining houses, the first three color minutes in some years, and the decision that the athletic department was not omnipotent. It may be said that for the first time under an elected president the IHC actually got things done, to the immense satisfaction of all, what with the above mentioned three color minutes, and Karp's little rotational love-letters.







CLOCKWISE: Frank Winkler, Roger Minear, Sec., Duygu Demirlioglu, Chmn., Louis Newman, Steve Brown, William Satterthwaite, Leon Thomsen, Joe Weis.

The Educational Policies Committee is a semiorganized bull session which meets weekly to sample greasy food and discuss all matters of interest in the Caltech undergraduate curriculum. This year's EPC witnessed an unusual number of concrete accomplishments. The reduction of the PE requirements to two years was one notable success; some slight changes were in

### EX-COM

The Ascit Executive Comm serves as the study and planning of ASCIT. It is the scene of random bull sessions, where proof long range and even some of short interest are discussed, and occasion

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The Scum Of The Earth

Volume LXV.

Associated Students of the California Institute of Technology Pasadena, California, Thursday, January 9, 1964

**California**Tech

No. 12

The California Tech, as most anyone will tell you, is a weekly instrument. Staff members like to think of it fondly as a news organ and take a certain sadistic pride in making sure that this classic piece of yellow journalism is issued each Thursday to plague the campus.

The Tech's "success" is not due merely to chance. A large part of the credit is due to its two hard-working editors, whose talept was recognized early last year by

CaliforniaTech

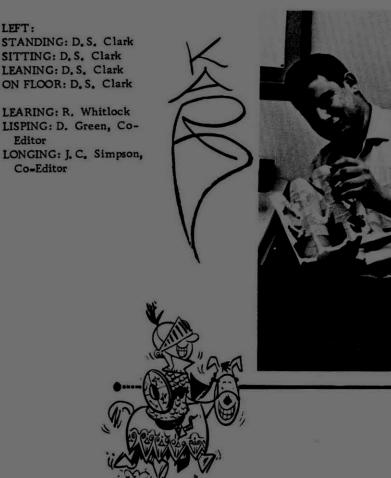
Tenden in the California international value i

Represented nationally by National Advertising Service, Inc. Subscriptions; \$1.50 per term, \$4.00 per year. Write: Circulation Manager. then ASCIT President Larry Rabinowitz, who remains sagely, "Irresponsibility and immaturity should come to make this one of the most interesting papers in year

Official <u>Tech</u> Madman Rodger Whitlock screens tures to assure that nothing worthwhile gets in the <u>T</u> but stays around to annoy the staff. Finally, after <u>Sp</u> Editor Bob Landis has somehow managed to glo Tech's consistent losses, demon of the night Bob Bo drops by to contrive another truly random layout.

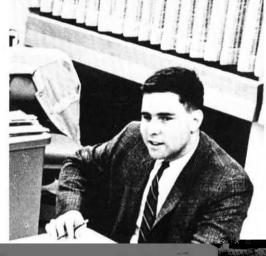
Despite Richard Karp's complete dedication to a ger and better Tech debt, he nevertheless finds plent time to join Whitlock in harassing the true heros of yellow sheet's success, the eager(?), articulate(??), dedicated(???) staff(!?!). These industrious souls, am cues of "I quit" and "Let's forget it this week", h nevertheless made it possible to live up to the T traditions of "rampant prejudice, editorial irresponbility, and worthless features, combined with unp cedented energetic and dynamic distortion of the news







Bob Berry Managing Editor Bob Landis Sports Editor



"Censored, By Whom?"



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#### The Birth of the Little T:



David, Judi, and friend. Note the pseudo-angelic quality of David. Would you marry this man? Obsviously not! The true answer-Judi has just married the cake, which David is about to destroy in order to replace himself in her affections (this, of course, is why he is overweight).

Absurdity is the Soul of Wit

David and Judi Helfman



TOTEM, the campus literary magazine, is a forum for the exchange of nontechnical ideas among the students: if



LEFT TO RIGHT, FRONT ROW: Bill Meisel, Ivars Ambats, Dave Hammer, Terry Mast, Tom Lubensky. MIDDLE ROW: Dick McGehee, Guthrie Miller, Dick Burgess, Corr. Sec., Dave Colton, Al Hindmarsh, V. P., Paul Swatek. BACK ROW: Tom Latham, Frank Winkler, Treas., Ray Green, Joe Weis, Rec. Sec., Art Turner, President, Dave Holtz, Roger Minear, Hist., Dick Essenberg, George Reeke.

Tau Beta Pi is a national fraternity whose purpose is to honor those who have attained high academic standing and have a record of integrity and service. The California Beta chapter represents the only scholastic honor society on the Caltech campus. Members are selected twice each year, and at Caltech the members are drawn from all options except Biology. In order to be admitted one must have academic standing in the upper one fifth of his class.

The purpose of the Tau Beta Pi is to encourage academic excellence and personal integrity by providing recognition to those students who best examplify these characteristics. In addition to recognizing juniors and seniors by electing them to membership, the organization also honors outstanding freshmen by presenting the Freshman Award to the member of this class who most clearly exhibits those qualities necessary for Tau Beta Pi membership. Last year it was awarded to William B. Broste.

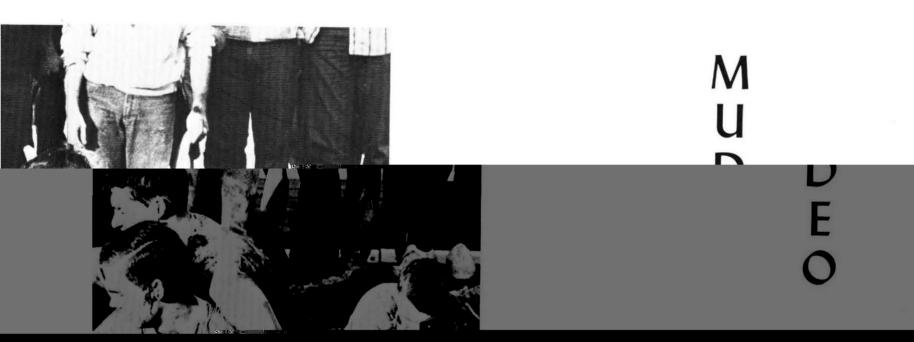


Alpha Phi Gamma is a national honorary coeducational journalistic society. Caltech's chapter, Gamma Lambda, was instituted last year to provide Tech with a much needed organization to provide recognition of the individual contributions to Table and the LEFT TO RIGHT: Bob Levin, Dick Karp, J. C. S Rodger Whitlock, Don Green.



pson,







### GLEE CLUB

DIRECTOR Olaf Frodsham



The Glee Club this year took a long stride forward on the road to national recognition. Long well known for vocal excellence and virile song in Southern California, the Club enhanced its reputation and experience with an extended tour to the Midwest in the Spring. Despite many obstacles, including the scheduling of the tour during finals week and, of course, financial problems, forty men dynamically led by Mr. Olaf Frodsham completed a successful series of concerts in Wisconsin and Illinois.

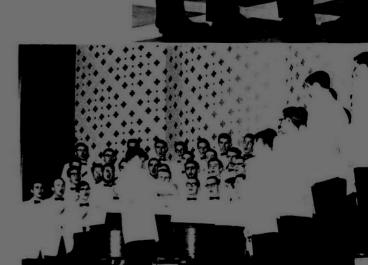
Continuing their reputation for the performance of fine music, the Club's repertory included works by Berlioz, Copland, Byrd, Rachmaninoff, and Palestrina, as well as American, and Oriental folk songs. The flexibility of this program allowed the club to continue a full concert schedule before various organizations in the

area In addition, the Glee Club & the - constructive begain sponsored the vocal competition at the Interhouse Song. The Club once again received excellent comments at the annual Southern California Intercollegiate Music Festival, and ended its concert year with the popular spring concert in Beckman Auditorium.

Auditorium. Mr. Frodsham was aided in organizing this ambitious set of activities by an able group of officers. Chris Dalton, President; Bob Sweet, Manager; Paul Swatek, Secretary; Al Hindmarsh, Treasurer; John Radin, Librarian; Vic Sirelson, Transportation manager; George Brackett, Publicity manager; Steve Elliot, Coat manager; and David Helfman, student director.

GLEE CLUB QUARTET

Bill Broste Art Johnson George Prewton Tom Oberjat





#### **Coffee Hours**

The ASCIT Faculty-Student Coffee Hour this year completed its first full year of existence and enabled many students and faculty members to get to know each other somewhat better. Established as being permanently on Thursday afternoons it moves from Winnett Lounge once a term to the Athenaeum Basement Lounge for a Faculty sponsored exchange, under the encouragement of Dr. Kent Clark. When it is in its normal environment, its permanent fixtures are Judi and David Helfman, serving as a quasi-official ASCIT Host and Hostess, plus Don O'Hara and a number of other helpers. Hopefully the Coffee Hour will take root firmly after this initial year of struggle, and it will not be quite as difficult to get Faculty members or students out in the future.





Don't let your coffee get cold!

#### Model UN

LEFT TO RIGHT: Guy Jackson, Fred Lamb, Mike Rosbash, Jibayo Akinrimisi, Tom Latham, Co-chm, Marty Einhorn, Don O'Hara, Co-chm, Not Shown: Jerry Yudelson.





Model United Nations is held each spring at some school on the West Coast. This year it was at far away Spokane. Caltech's delegation was, therefore, small and each member carried increased responsibility in planning and performing during the conference. We represented Nigeria, the biggest African country and a leader of the Afro-Asian Bloc. Working in committees, and in the General Assembly we managed to pass sanctions against South Africa, and a resolution on the Angolan question, both areas of vital interest to Nigeria.



SPICER CONANT DAVE HELFMAN TOM LATHAM DON O'HARA VOLKER VOGT RANDY CASSADA DON GREEN HERB FLINDT ART JOHNSON BOB LIEBERMANN BILL SCHOENE **GRANT BLACKINTON** HONOR CERTIFICATES DICK BURGESS JACK McKINLEY GERALD THOMAS FRANK WINKLER ROGER DANSON STEVE HALL

BOB SWEET

ED MEDOF

KEN BROWN BARRY DINIUS

LEON THOMSEN

DUYGU DEMIRLIOGLU

DICK ESSENBERG J. C. SIMPSON FRED BRUNSWIG DAVE HAMMER RICHARD KARP BOB McELIECE ART TURNER RUSS BRILL KEN EVANS VIC SIRELSON

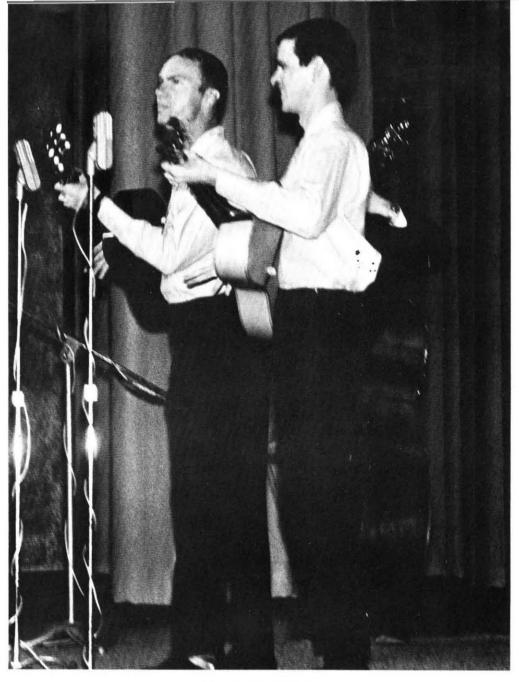
JOE WEIS BOB LEVIN RODGER WHITLOCK GORDON MYERS THOR HANSON GEORGE REEKE CHRIS DALTON TOM GREENFIELD BILL SATTERTHWAITE PHIL LIAPIS

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## BUD and TRAVIS

February 29, 1964--They came, They psalm, They cantered.



Bye, Bye Buckwheat.



Reception

In Ruddock House





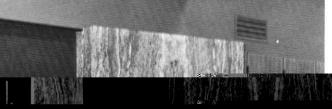
LEFT TO RIGHT: Gary Bornzin, Mike Cunningham, Ben Stackler, Rick Hake, Chris Dalton, Vic Sirelson, Dave Helfman, Volken Martin See, Thry bgth See, Parishantashann Maltan Tray Martine Section, a Gin null', Assoc.' Sec.', wes hersney, exec. Sec.

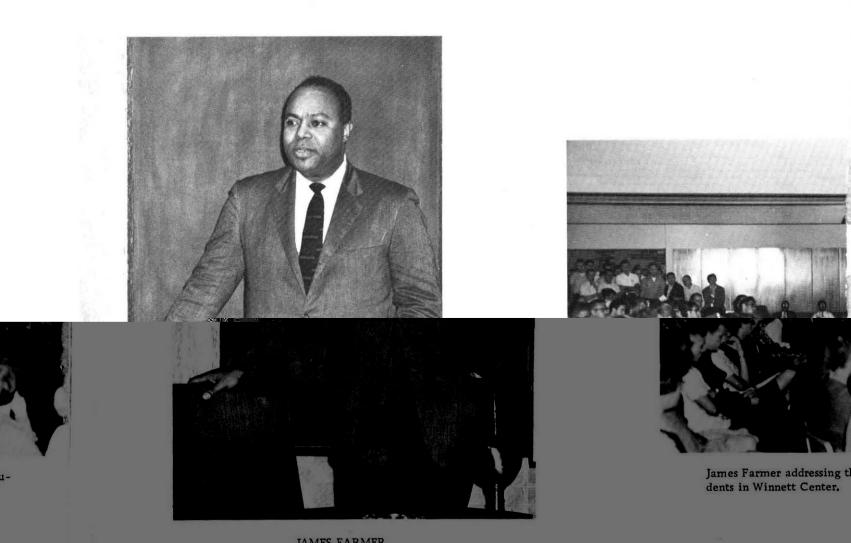
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The summer of 1963 was one of s



Ralph Helstein comments on a question during a panel discussion in Winnett. Panel Members are, left to right, Byrd Jones, Helstein, J. C. Simpson, and Dr. Peter Fay. The subject "New Challenges for Labor."





JAMES FARMER











RUDDOCK HOUSE









RICKETTS HOUSE

#### DABNEY HOUSE

\* \* **A** 







LEFT TO RIGHT: Bob Scott, Ath. Mgr.; Gary Scott, Treas.; John Beamer, V. P.; Guy Jackson, Pres.; Neal Wright, Secy.

#### Class Of 1965

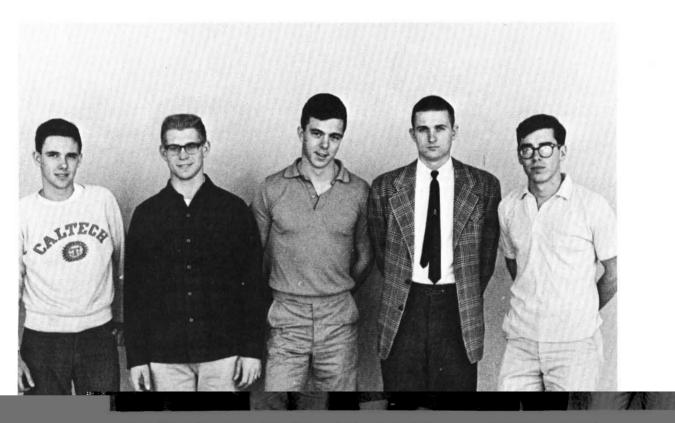
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The officers of the class of '65 in its Junior year have come up to all the expectations placed upon it by the members of the class. As the Juniors don't place too much stock in their class, one could say they have even exceeded these expectations. The leaders of the class served admireducin their respective.

positions, Jackson as President Bo

Vio

Dragida



John O'Pray, Secretary, Arlin Peters, V. P., Richard Touton, Athletic Mgr., Clyde Staley, Treasurer, Doug Eaton, President.

#### Class Of 1967

The fact that the Class of 1967 is not exactly like the preceding freshman classes became dent at the New Student Camp in the mountains. After surviving their first encounter with food and burrowing out from under the snowdrifts, the Frosh produced a talent show tha faculty and counselors called the best in several years.

The freshmen proved to be somewhat unusual academically. The Class of '67 had the hig average test scores of any entering class in Caltech history, but Dean Strong is still tryi determine why the Frosh first term GPA curve looked more like the back of a double hun camel than a bell.

The Frosh Mudeo victory proved that the Class of '67, unlike past freshman classes, is to the ways of the world. The enterprising Frosh not only actually won three of the five evbut also outbid the sophomores for favorable consideration from the Junior judges.

However, the most remarkable aspect of the Class of '67 is that it is actually trying something as a class by setting up athletic competition between the freshman sections. I present trends continue, and obviously they will, the Class of 1967 will be long remember Caltech.



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#### Christian Fellowship

KNEELING: Alex Liang, Ralph Young, Kim Gibson, J. Lok Chang. STANDING, FIRST ROW: Prof. Calvin Schoonhoven, A. C. Lundgren, Dr. Rudolph Von Huene, Tom Miller, Stacey Langston, John Miller, Ron Remmel, Jibayo Akinrimisi. SECOND ROW: Robert Kruse (President), Vern Poythress, Ray Leung, Tom Bostick. THIRD ROW: Dave Price, Craig Carlyle, Ted Fiyimoto, Gary Thompson. FOURTH ROW: Dave Togstad, Von Hughes, Dave Sherlock.

#### Newman Club

FRONT: George Reeke, Father Thomas Dunne, Dick Landy, Dick House. MIDDLE: Ed Bender, Jim Espinosa, Two Grad Students. BACK: Rex Couture, Warren Peascoe.



## Christian Science

Richard Teague, Ron Douglass, John Wyndha David Welch, Advisor, Gary Edwards, Geor Scott, President, Gregg Shuptrine.





#### Radio Club



FRONT ROW: G. Reeke, H. Williams, D. Lambert. MIDDLE ROW: A. Bersbach, L. Karr, G. Swartz. BACK ROW: W. Hammer, F. Williams.



#### Chess Club

LEFT TO RIGHT: John Radin, Martin Cooper, Dick Stanley. Sponsor: Dr. Fuller.

#### Chinese Student Association

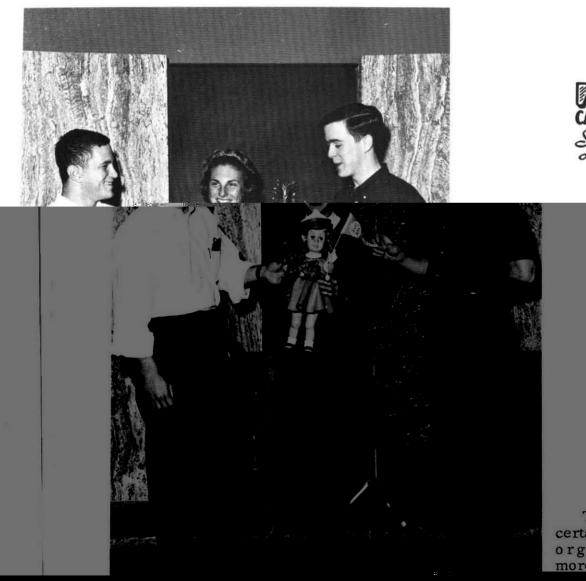


## Coin Club

1120



LEFT TO RIGHT: Mike Lambert, Roger Hendrix, Dick Burgess, Spicer Conant, Al Limpo.



The Caltech Service League is certainly the most valuable service organization on campus. It doe more for the student body and i

ie ue

#### Caltech Alumni

The membership of the Caltech Alumni Association for the 1963-64 year totaled 4435, or 49% of the number of living graduates. Of this number 20% are Life Members of the Association.

The Alumni Association contributes directly to student activities through the financial assistance it gives to ASCIT for the Interhouse Dance and the Alumni-ASCIT Assembly Programs. Each spring it sponsors a Seminar Day for Alumni and their friends. In 1963 over 1200 attended this all-day series of lectures presented by members of the

> faculty on various topics of scientific research, economic problems, political affairs and cultural changes. Social events during the year included the annual Interhouse Dinner-Dance and a February Dinner-Dance. Class Reunions are held every five years at the annual Dinner-Meeting held in June. The Association raises money annually for the Institute through the Alumni Fund. Substantial contributions have been made in the form of the Alumni Swimming pool, four 4-year scholarships, increasing the endowment funds and unrestricted use of the funds.

> > Membership in the Alumni Association includes a subscription to the alumni magazine, Engineering and Science. This publication has gained wide recognition for its timely and interesting articles by authorities in the field of science. It also features news of events on campus and alumni activities. The publisner of the magazine is Dr. Richard C. Armstrong, Class of 1928, and the editor is Edward Hutchings, Jr., a familiar figure on campus.

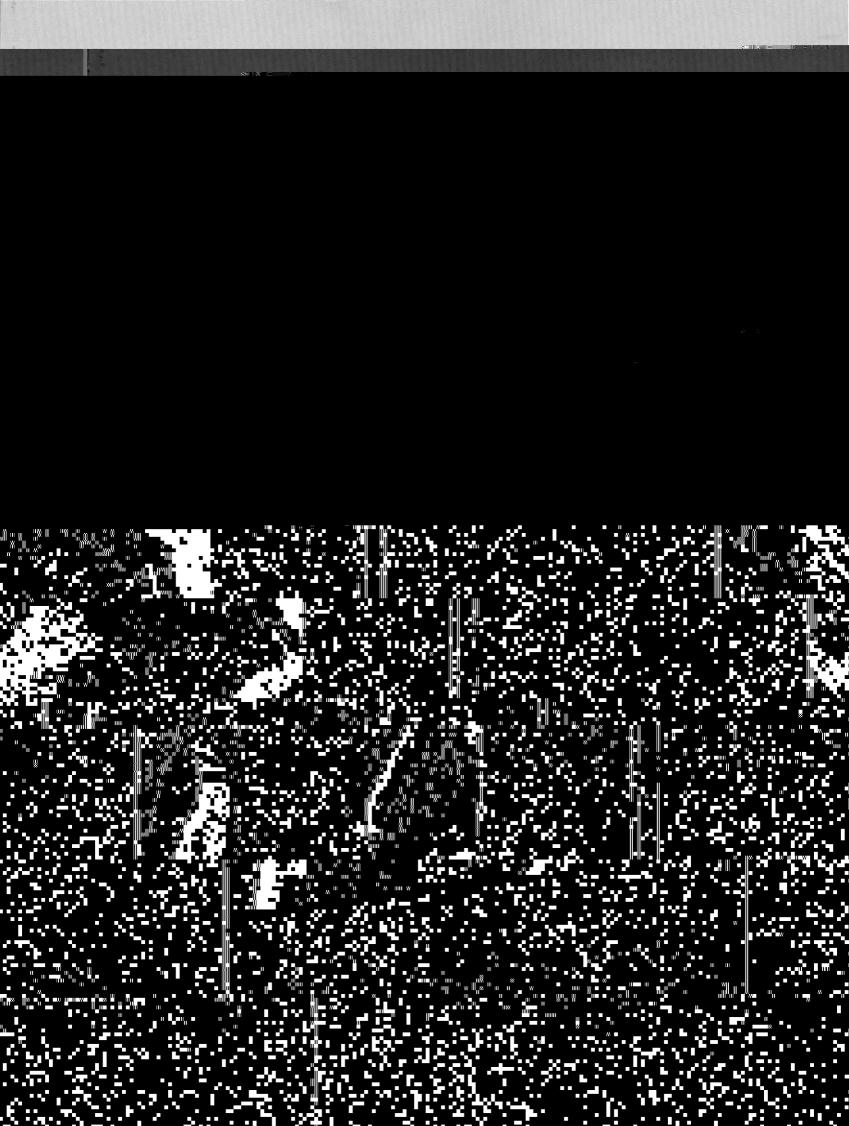
Caltech alumni are scattered all over the world. Active chapters are located in New York City



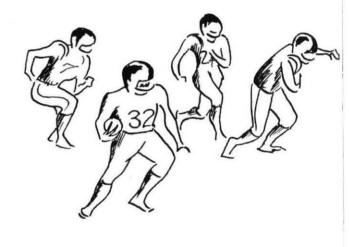








# FOOTBALL



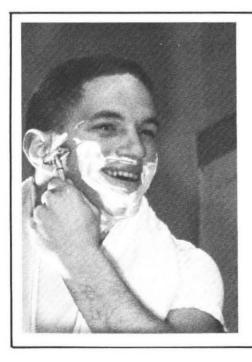
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Varsity . . .









After the big game, we talked to Tech grid star Bob Liebermann in his room.

"Say Bob, those big defensive men were really after you today - but you came thru with a cool, smooth performance."

"Right, and here's another smooth, cool performer. It's my new Blick Blade. I get up to 2 shaves per blade. And every one of them is the kind of smooth shave the girls on campus really go for."

#### And Frosh . . .

1963 saw the continuation of the long standing tradition that Tech frosh never win a football game. Injuries and lack of depth, and experience once again proved decisive factors in the record. Only against Pomona were the frosh held scoreless, however, as they scored against both Oxy and CHM.

Maybe next year . . .

1963	FROSH	RECORD
------	-------	--------

Occidental	33	CIT	6	
Pomona	59	CIT	0	
CHM	36	CIT	8	

FRONT ROW: Chuck McQuillan, Bill Bricken, Captain. MIDDLE ROW: Andy MacKay, Bob Parker, Peter Balint, Bob Piccioni, Gary Ihas, Steve Card, George Kurata, Vic Kovacevic, Gary Little, Lot Ensey. BACK ROW: Coach Baldwin, Les Powers, John Foster, Mike Squires, Bryan Stallard, Marshall Hall, Del Ratzsch, Rich Touton, Gregg Guffrey, Coach Jenses, Martin Smith (Manager). NOT SHOWN: Bo Barbosa.



# **CROSS COUNTRY**

£ 4.2

1963 represents a nadir in Tech's Cross Country fortunes. What with only 4 varsity men out, and a team consisting of 7 members, we were beaten before we began. It is a tribute to the determination of Captain Ed Lee, Louis Corl, Dick Essenberg, and John Saunders that they gave their time and energy to a sport which has evinced so little interest from Techmen. Next year should see great improvement in our position with several frosh, including Peter Cross, who placed in the Conference Finals, joining the Varsity team.



ABOVE, VARSITY, LEFT TO RIGHT: Ed Lee, Captain, Louis Corl, Dick Essenberg, John Saunders. BELOW, FRESHMEN, LEFT TO RIGHT: Dick Sparks, Fred Lamb, John Horrocks, Larry Dillehay, Bob Miller, Peter Cross, Jim Smith.



# SOCCER



#### Our 1963 varsity team was vastly improved over

last year's. Paced by Dick Wade and Don Wiberg on defense and Dave Gee-Clough on the front line, the team also possessed a depth that kept injuries from really hurting. We were kept from the league championship only by an exceptional UCLA team, finishing second with a 6-2-2 record.

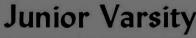
Lack of experience really hurt the JV's, as last year's team formed the nucleus of this year's varsity. The team had to be completely rebuilt, and finished the year winless.

#### Varsity



LEFT, VARSITY: FRONT: John Trischuk, Janusz Warszawski, Mike Hunsaker, Bernie Hird, Joel Kwok. BACK: Coach Lee Andrews, John Jo Terry Schwartz, George Argyropoulos, John Gallivan, Ed Cline, Dick Wade, Herb Chen, Don Wiberg, Wes Shanks, Da Gee-Clough.

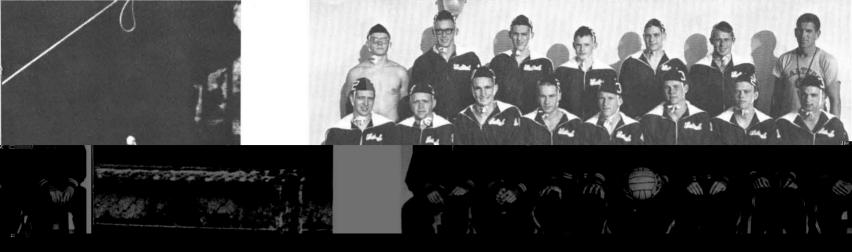
BELOW, JUNIOR VARSITY: FRONT ROW, LEFT TO RIGHT: Phil Liapis, John Harkness, Roger Hooke, John John, Peter Rispin. BACK: Dick Lane, Do Kubler, Jim Vollbrecht, Walt Innes, Zoltan Soos, Dave Jackson, Bruce Kover, Mike. NOT SHOWN: Elton Young and H Jubin.











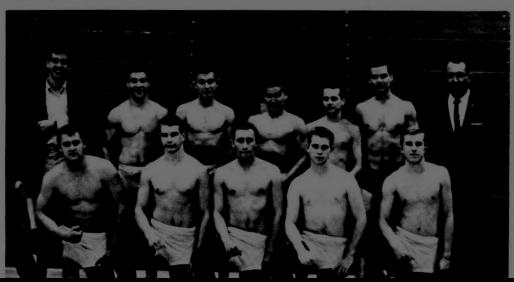
## GOLF

"At the present writing no matches have been played, but Tech is certain to have a team of first rank in this conference. . . The Tech school spirit is always to the fore, and we know that the golf team will do everything to uphold the Tech tradition."--says the 1931 Big T. All we can do at this writing is hope.



ABOVE, GOLF: Charlie Vinsonhaler, Steve Swenson, Bill Colglazier, Roger Davisson, John Beamer, John Eastment, Tom Carlson, Dave Hyde, Bob Landis, Jim Beall. NOT PICTURED: Yance Hirschi, Rod McCalley, Harold Moeller, Luther Perry, Earl Reiland, Tom Resney, John Vitz.

BELOW, WRESTLING, FRONT: Andy Kampe, Howard Powell, Walt Paciorek, Arlin Peters, Jim Groth. BACK: Tom Latham, Dave Faulconer, Dick McGehee, Frank Fujimura, George McKenna, Chris Shelton, Coach Merringer. NOT PICTURED: Tom Mc-Kenzie.





# BASKETBALI

The 1963-64 varsity basketball team finished wi a disappointing 3-19 record. The final game, a 78loss to UCR, was typical of much of the season. In t first half, Tech led by as many as 14 points. In t second half, the offense lost its touch, the defen sprung leaks, and UCR took the lead in the closi minutes. In all, 9 games were lost in the last five mi utes. Lack of reserves hurt the team in many of the games as "Elgin" Vinsonhaler, John Tucker, & Joe We were out with injuries or sickness. This problem w alleviated when Doug Holford came out midway throu the season and added much needed reserve strength.

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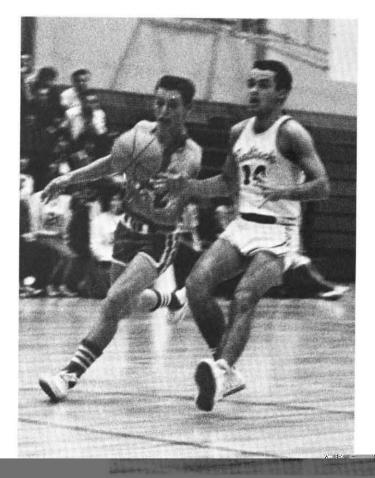
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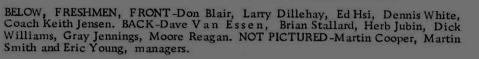
S

Tech again had a high scoring front line. Dick Burge led the team statistics in most departments. Burge averaged 16 a game and Captain Joe Weis added 14 mor Leon Thomsen improved steadily throughout the seaso and was fine rebounding and great on defense. Gary Dab Coach Ed Preisler Dennis McCreary Dick Burgess Leon Thomsen John Tucker Jerry Yudelson



## Frosh





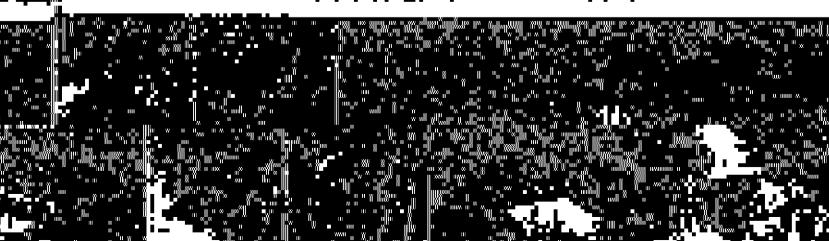


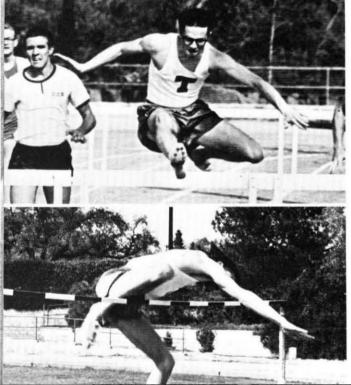
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# TRACK

Tech's varsity track team has seen a bleak season in 1964. With a bout half the meets over, the spikers have managed only one victory (against Biola), and prospects for the rest of the season are dim. Inadequate practice due to spring vacation, wet weather and minor injuries has kept the team from thus far realizing its potentialities, but the rest of the season could see much improve-

ment. Steady performers have included Charley Sawicki in the javelin, Tom Williams in the high jump, Steve Blumsack in the 880 and relay, Ken Brown in the dashes and relay, Pete Wyatt in the intermediate hurdles, George Radke in the weight events, Steve Garrison in the pole vault, and Doug Gage in the high jump, long jump.





ABOVE, VARSITY: FRONT-Charley Sawicki, Steve Garrison, Pete Wyatt, Steve Blumsack, Doug Gage. SECOND ROW: Bob Levin, Ken Ludwig, Louis Corl, Bill Spring, Thor Hansen, Ken Brown. BACK: Dick Karp, Manager, George Radke, Ed Lee, Don Radcliffe, Tom Williams, Jared Austin, Jerry Kabell, Shelby Chapman, Manager. NOT PICTURED: Dick Essenberg, John Nowery, Leon Thomsen, Marston Westbrook.

BELOW, FRESHMEN: Ron Peterson, Doug Eaton, Gregg Guffrey, Bob Piccioni, Dave Hammond, Larry Dillehay, Gary Ihas, Walt Innes, Peter Cross, Kent McCaulley, Frank Benford, Thynm Hynczrxym, Bob Miller, Fred Lamb.







FAR LEFT: freshman John I NEAR LEFT: Butch Niell. OPPo freshmen: manager Peter Balin Fishbein, John Hoshor, Dick Jim Buckholtz, Terry Beard,

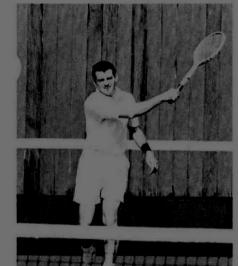


## Freshme

Winning important matches and always putting up a good effo against formidable opponents. Unfortunately, Butch will be out f most of the rest of the season due to a skiing injury. This will me that Al Limpo, who played first doubles with Butch, will now play the number one slot. Al and Ray Green have been high on the ladd throughout the season, and their consistent play has contributed t number of victories. Another fine contributor has been Freem Rose, who has an unusual but reliable style of play. Rounding of the team are three sophomores: Val Ellis, Jay Pearlman, and J Pressing. More experience and coaching should see these three in prove the consistency of their games as the season progresso Ellis especially seems to be a very fine prospect for the futur Coach Lamb's fine coaching should produce continued improvement in the team throughout the rest of the season.

The frosh have had a dismal season, but John Hoshor sho prove a valuable addition to next year's varsity.







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# **BASEBALL**

Coach Ed Preisler's diamond contingent is struggling to escape the confines of the SCIAC cellar, its habitat for many eons. With the Occidental and Whittier vying as usual for the league championship closely followed by hard-hitting Redlands, it remains to CHM, Pomona, and Caltech to fight it out in the amateur division.

After a successful exhibition season of four wins and one loss, the Beavers got off to a terriblade

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# ATHLETIC STAFF



Ed Preisler

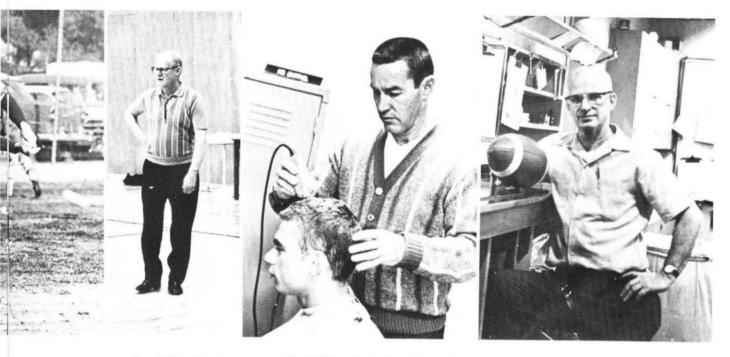
Harold Z. Musselman

Miss McGee and Mrs. Wayne

Coach Bert LaBrucherie

Coac

# HERE, SPORT!



Coach Jim Nerrie

ŧ

Paul "Jake the Barber" Barthel

Fergy





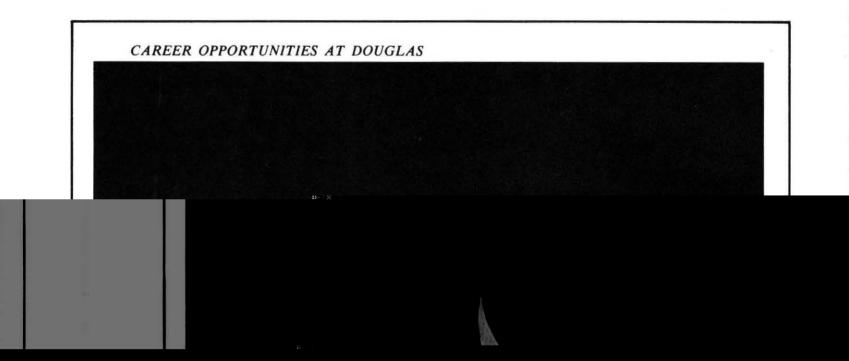
# ADS

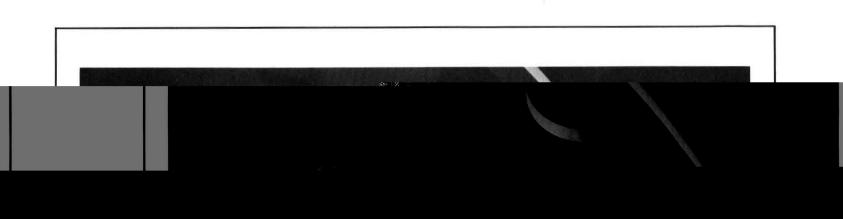
#### SUPPORT OUR ADVERTISERS

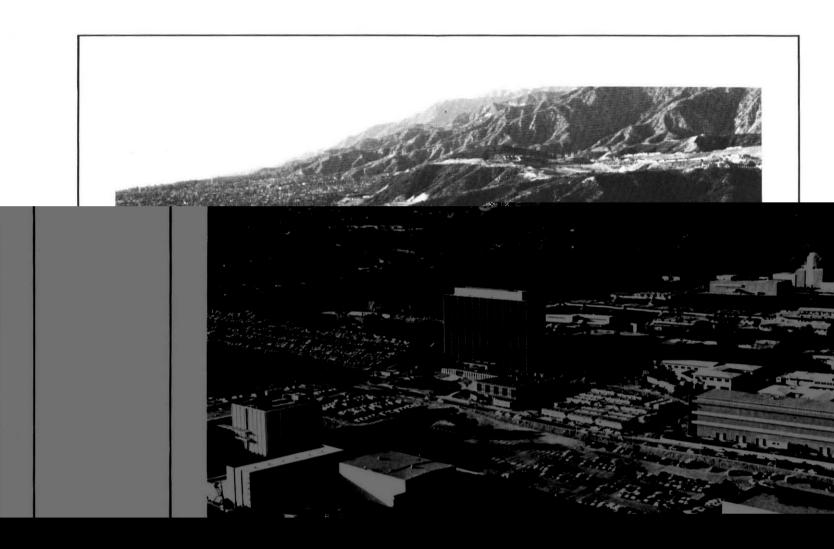
On the next few pages you will find advertisements from the neonle

who are supporting this annual. Much of the money necessary to publish the 1964 Big T was supplied by these advertisers. You will notice that many of them offer various services to Techmen while others handle the products which everybody needs. It is our advice that you patronize these people when seeking such services and products. You will notice a number of ads from companies who are interested in hiring Caltech students. These advertisements provide a good method of becoming better acquaint-









OUR GOAL ...

## A Satisfied Clientele

CALTECH FOOD SERVICE

George Hershberger Richard Huffman Dennis Furness

MANUFACTURERS OF

THE BIG T YEARBOOK COVERS

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OUR GOAL ...

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THE BEAUTIFUL SENIOR PORTRAITS WERE DONE AT

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TOUJOURS GAI!

-GILBERT A. ROLAND



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4103 SAN FERNANDO ROAD , GLENDALE, CALIFORNIA

## RICHARD ROCKET (executive)

The Home of the BIG BOY in the considered opinion of Mr. Rocket, is the finest engineered facility in America for producing wonderful food and service. (Mr. Rocket was in The Home of the BIG BOY last night with his lovely wife and children.)



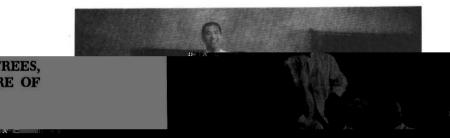


# "The Greatest Name in Dairy Products"

# Carnation Company



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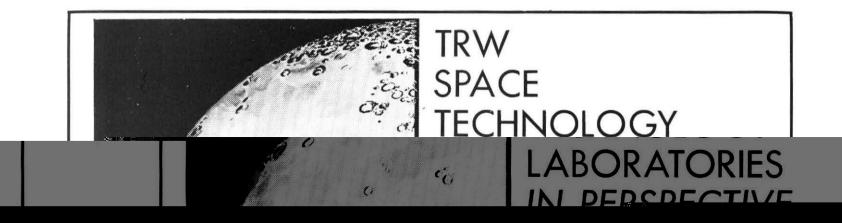


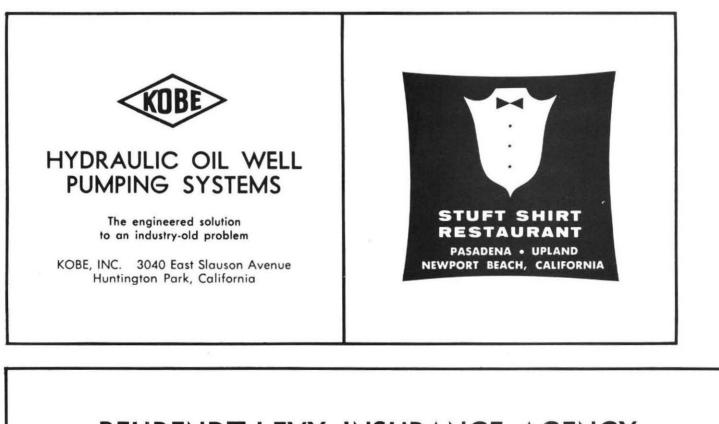
#### ◆◆ FAMOUS FOR PRIME RIB, STEAKS, SUPERB ROAST BEEF AND AUTOGRAPHED LOBSTER. CAESAR OR TOSSED SALAD INCLUDED WITH-OUT CHARGE WITH MORE THAN 30 E

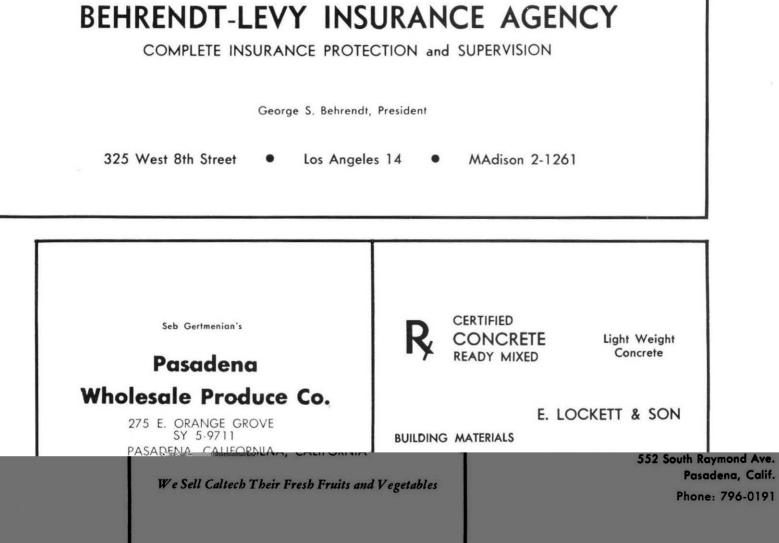
OUT CHARGE WITH MORE THAN 30 E SERVED IMPECCABLY IN AN ATMOSPH QUIET CHARM AND ELEGANCE.

LUNCHEON • PRE-THEATER DINNER • DINNE



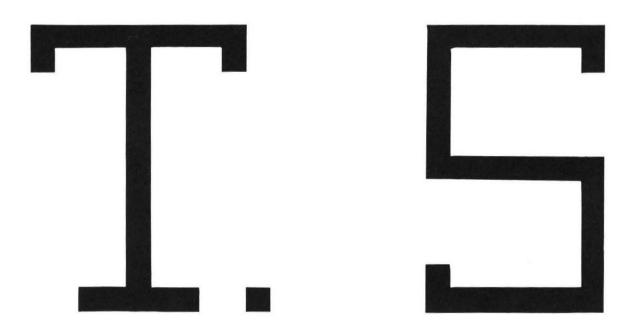






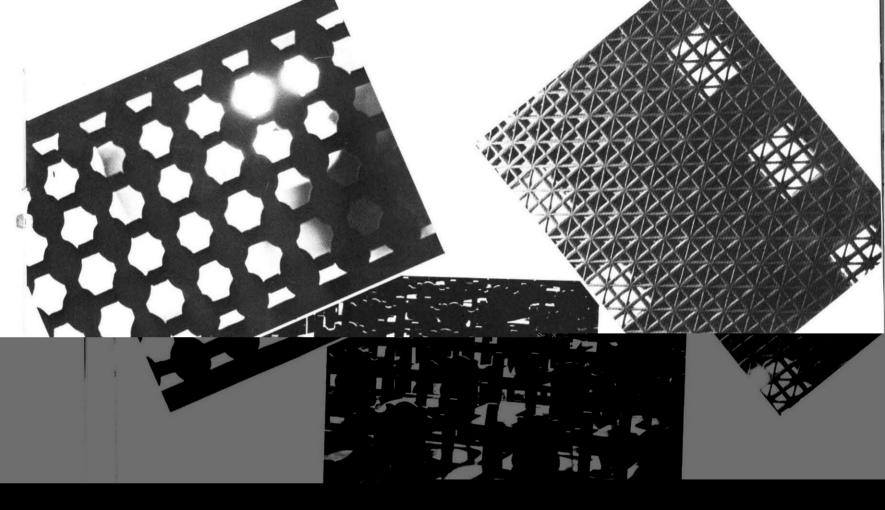
# THE CLIQUE

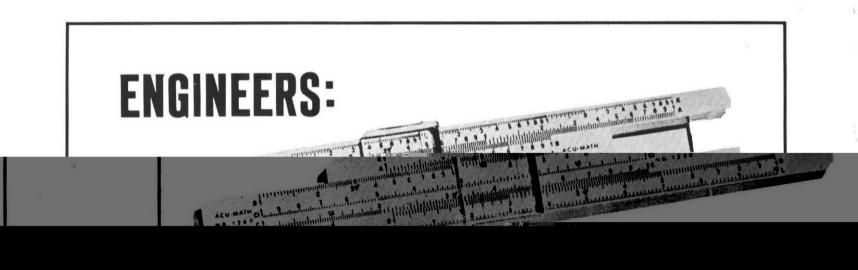
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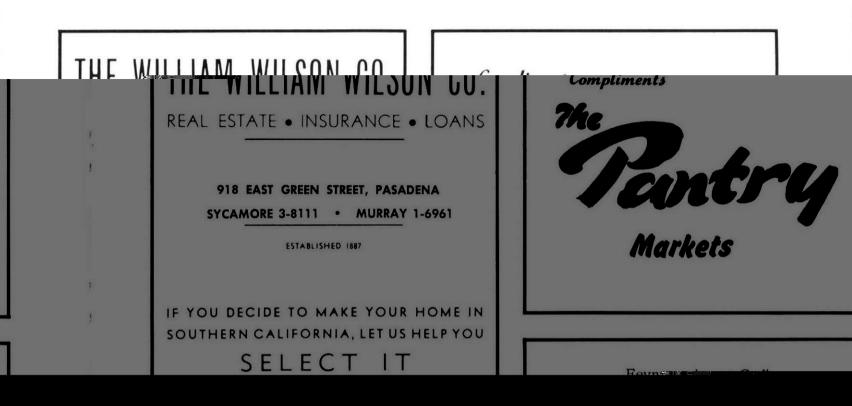


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Web	Mac
Geo	Dick
Carp	Grove
Green	Beaver

Geepsbeer







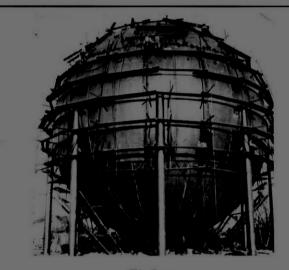
Congratulations To Bob





**Your Loyal Protector** 

Always Vigilant Always Brooklyn Always Yours





Before

After

This sewage tank was in serious disrepair, threatening to deluge the countryside in 69 feet of garbage at any moment when B & G was called in to repair it. After only 6.9 months and a cost of \$690,000, the job was done. The results, no longer a danger to anyone, can be seen at right. Unfortunately, the countryside was deluged with garbage during repairs.

Can YOU find a place in this thriving organization? Can YOU fit into this job of the future?

Don't apply to work at B & G unless

You feel a need to earn wages without work and have no prior experience or skill. You can spend up to six hours eating one sandwich in the student game room.

You can pass a rigid interhouse physical.

You have been fired from a minimum of six previous positions for incompetence or laziness.

Can YOU find a place in today's MAN'S B & G? See your local B & G recruiter or come and visit our congenial offices and meet most of our staff.

## **B** & G

Head Office -- Right across the street from the Physical Plant Building



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